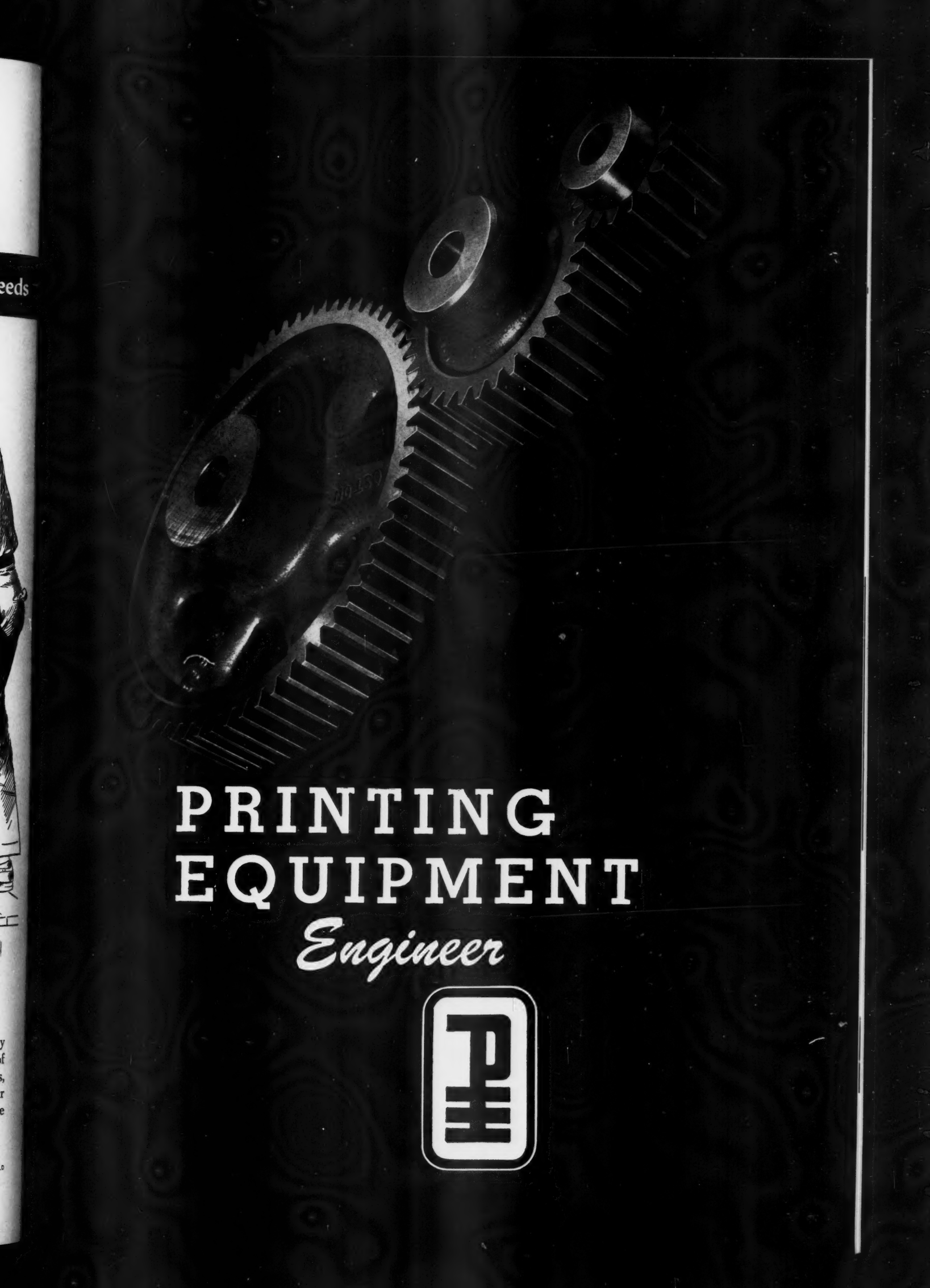
PRINTING
EQUIPMENT
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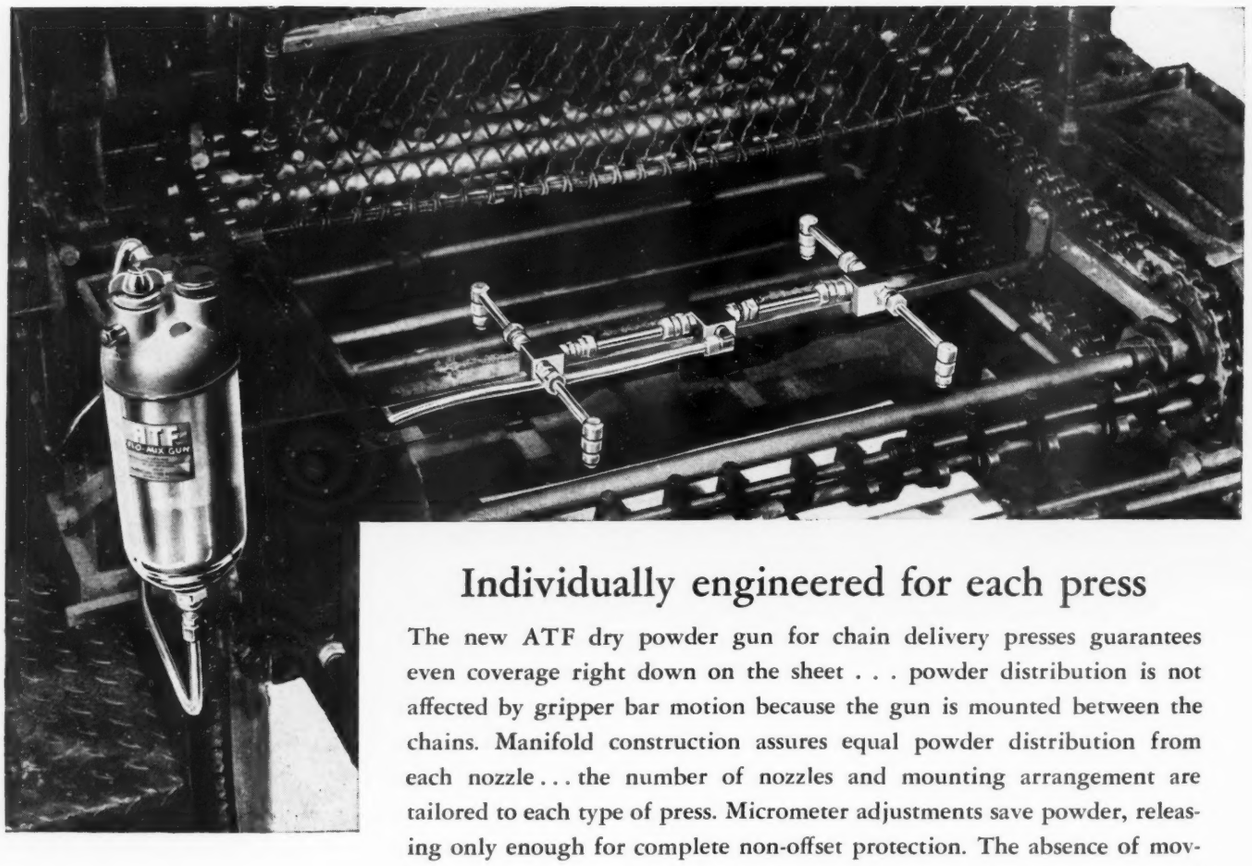
ATF *Manifold Type*

FLO-MIX DRY POWDER GUN

for chain delivery presses



Individually engineered for each press

The new ATF dry powder gun for chain delivery presses guarantees even coverage right down on the sheet . . . powder distribution is not affected by gripper bar motion because the gun is mounted between the chains. Manifold construction assures equal powder distribution from each nozzle . . . the number of nozzles and mounting arrangement are tailored to each type of press. Micrometer adjustments save powder, releasing only enough for complete non-offset protection. The absence of moving parts assures trouble-free operation, lowers maintenance costs and practically eliminates down time.

The Gun with the Air-Cleaner!

This outstanding feature feeds dry, clean air to air nozzles, eliminating clogging and the possibility of foreign material on the printed sheet.

Call your local ATF Representative for complete details.

American Type Founders **200 Elmora Avenue, Elizabeth B, New Jersey**

Branches in Principal Cities

Manufacturers of: Kelly Presses, Little Giant Presses, Chief Offset Presses, Web-fed Offset Presses, Gravure Presses, Foundry Type and Process Cameras.

Distributors of: Vandercook Proof Presses, Composing Room, Pressroom and Bindery Equipment.

Yes, there's color just around that bend in the road —there's plenty of color being printed now—and there's more color coming up!

America's newspapers have already installed or will soon install new presses in which every provision has been made to meet this rising demand for color.

Have you thought of the most important auxiliary equipment which makes possible the best in color printing—at a profit? Have you thought, perhaps, of a modern curved plate router, and how vital this machinery is in the processing of plates for perfect color printing?

The Sta-Hi MasteRouter is the logical answer to that question. . . Here is a machine built with precision to do a precision job. . . A machine completely enclosed to assure protection against flying metal chips. . . A machine with perfect lighting to avoid operator's fatigue. . . The only machine with an automatic power-driven traverse drive for rapid stripping of plates. . . A machine that has been acclaimed by users from coast to coast as the very last word in curved plate routing equipment.

Be equipped for the color you have—be prepared for the color that's coming up! . . . Ask today for full details on the STA-HI MasteRouter!

STA-HI CORPORATION • 1020 CROCKER ST. • LOS ANGELES 21

MORRILL *Announces*

METERED INK DELIVERY

NEWSPRINT BLACK and COLOR INKS

Metered ink delivery, another MORRILL "first", is good news and big news for newspapers because they will reap the maximum benefits from this important development.

MORRILL tank trucks are equipped with meters that mechanically register and record the exact amount of ink delivered to customers' storage tanks.

The meter is set to supply the amount of ink required to fill the storage tank. When the operation is completed you have an automatically printed receipt indicating gallon reading at start and finish. This receipt protects the buyer by giving each delivery an individual serial number, identifying the meter through which transfer was made.

This service is also available for color, but not in all locations at the present time. MORRILL'S Metered Multi-Color Tank Trucks have three separate color compartments with a total carrying capacity of 2500 gallons.

The steady rise of MORRILL to a position of leadership in the newspaper ink field has been the result of research and service, with the customer in mind, first and always. Metered ink delivery is proof that MORRILL does not shirk its responsibility to the Fourth Estate.

METERED INK DELIVERY
offers these advantages

Meters calibrated to within 1/40 of 1% (plus or minus) of absolute accuracy.

•

Ink spills or tank overflows are virtually eliminated.

•

At time of delivery, temperature of ink is recorded and gallons converted into pounds, taking into consideration temperature adjustment.

Flow valve bolted to meter combines high speed, non-dripping and positive closing features.

•

Mechanically printed receipt is proof positive of number of gallons delivered.

•

Air cannot be drawn into meter when truck tank runs dry as special eliminator breaks the siphon.

Meter for MORRILL ink truck gets final okay from Anthony Masciarelli, N. Y. Commissioner of Markets. Ralph C. Persons, General Manager of Geo. H. Morrill Co., receives Certificate of Approval.

GEO. H. MORRILL CO.

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PRINTING EQUIPMENT *Engineer*

A TECHNICAL MAGAZINE

SEPTEMBER
1949

Volume 78 Number 6

Published especially for management, production and mechanical executives responsible for printing production and the specification of equipment and supplies used in the commercial, magazine, private plant and daily newspaper fields.

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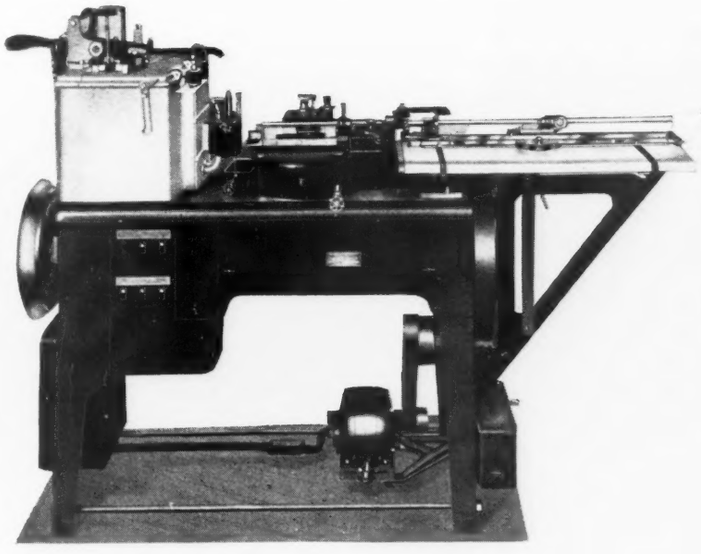

The Elrod Lead, Slug, Rule and Base Caster

The daily use of Elrod by many hundreds of satisfied users in plants of varying requirements is no mere coincidence, but proves its efficiency and economy. Wasted time handling strip material the old way has been eliminated, and production stepped up accordingly. You may have similar results in your plant. Write to us for further information.

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GOOD NEWS

FOR YOUR SMALLER-CITY NEWSPAPER

THE WOOD COSMOPOLITAN PRESS WITH INTRASERTOR

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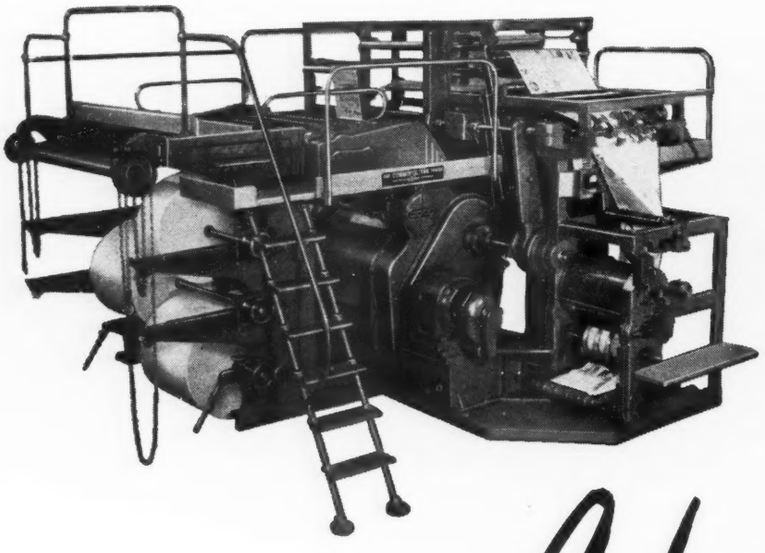

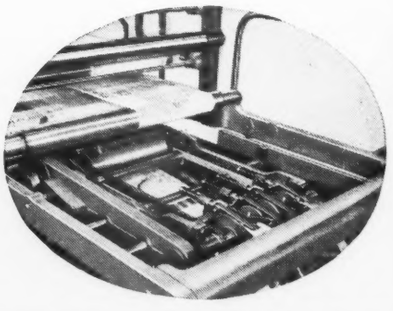

The Wood Cosmopolitan Press shown consists of 1½ units and delivers standard size newspapers of up to 24 pages and tabloid size papers of up to 48 pages, counted in lots of 25 or 50. Addition of another unit permits doubling the number of pages. The *Intrasertor*, an integral part of the press, "intraserts" a 2-page sheet in one section of a two-part paper when desired. "Intraserting" increases a regular size paper by 2 pages and a tabloid size paper by 4 pages when running collect. One section in collect products may have 2 pages more than the other section.

WHEN YOU WANT IT . . . *Color* IN YOUR REGULAR EDITIONS

With The COSMOPOLITAN Press, you can print a certain number of pages in up to four colors . . . whenever you feel it advantageous.

WRITE FOR THE INFORMATIVE BROCHURE ABOUT THE COSMOPOLITAN PRESS

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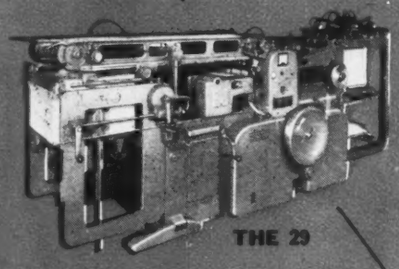
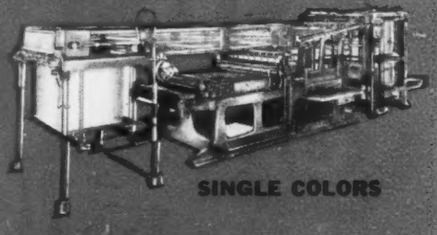
SMALL SHOP...
LARGE PLANT..

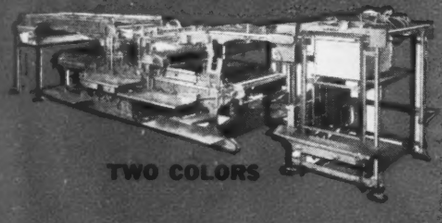
VERTICAL



THE 29

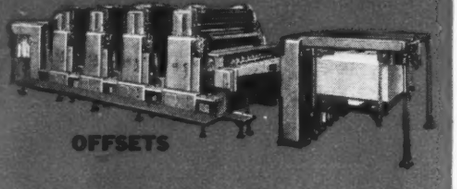


SINGLE COLORS



TWO COLORS

CUTTERS AND CREASERS



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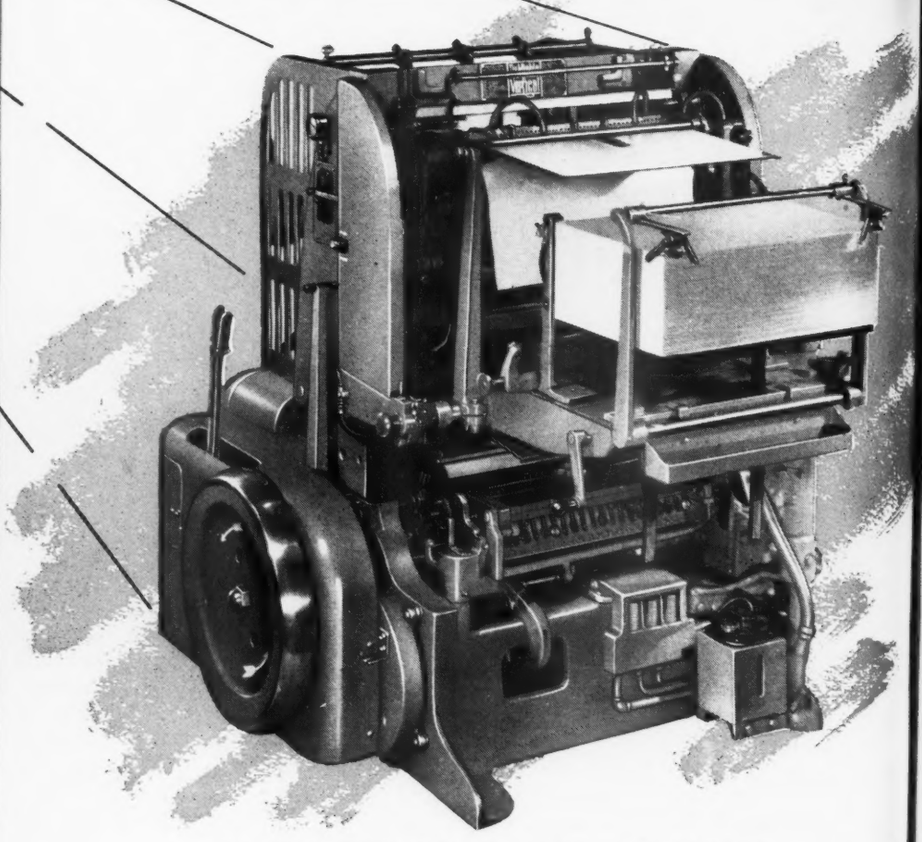

THE V-50 VERTICAL — maximum sheet 14″ x 20″
maximum speed 5,000 I. P. H.

Regardless of what size plant you operate or what type of printing you produce, Miehle has a press which will turn out high quality work more efficiently and economically than any comparable equipment.

The Improved Miehle Vertical has well been called "the fundamental necessity in every pressroom." Send for the 20 page booklet MV-1 describing this outstanding press.

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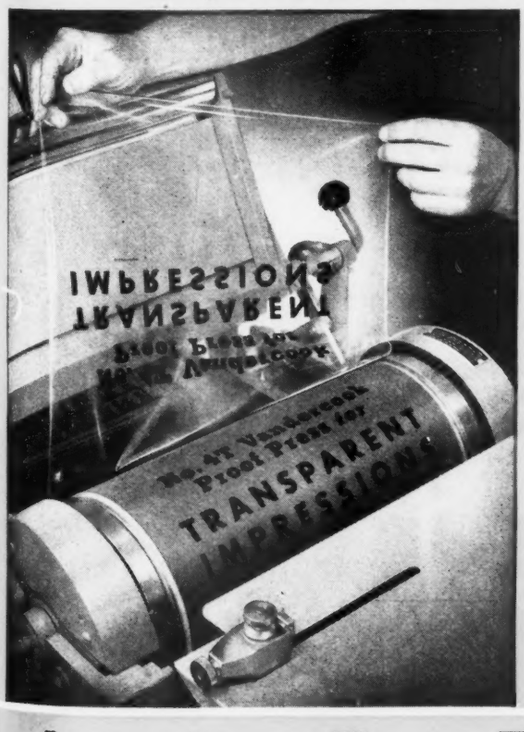
- *Power ink distribution.*
- *Changeable inking units reduce washup time and speed up changing colors.*
- *Extra heavy bed and cylinder to insure rigid, permanently accurate impressions.*
- *Micrometer front sheet guides.*
- *Combination foot operated and automatic grippers.*
- *Convenient tray for printed sheets, travels with cylinder.*

Or . . . the No. 4T for Transparent Proofs



This is the machine widely preferred by typesetters, offset lithographers, gravure plants and others for making top quality reproduction proofs. Or, they choose the No. 4T Vandercook for proving two sides of transparent material like cellophane or glassine. Both machines represent a wise investment—one that will pay immediate dividends in production, improved quality, increased efficiency, and lower operating costs.

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Assorted sections showing notching. Depth of notch depends upon thickness of sections.

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4.
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6.
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7.
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General Sales Offices

330 West 42nd Street • New York 18, N. Y.

it's **GOSS** *again*

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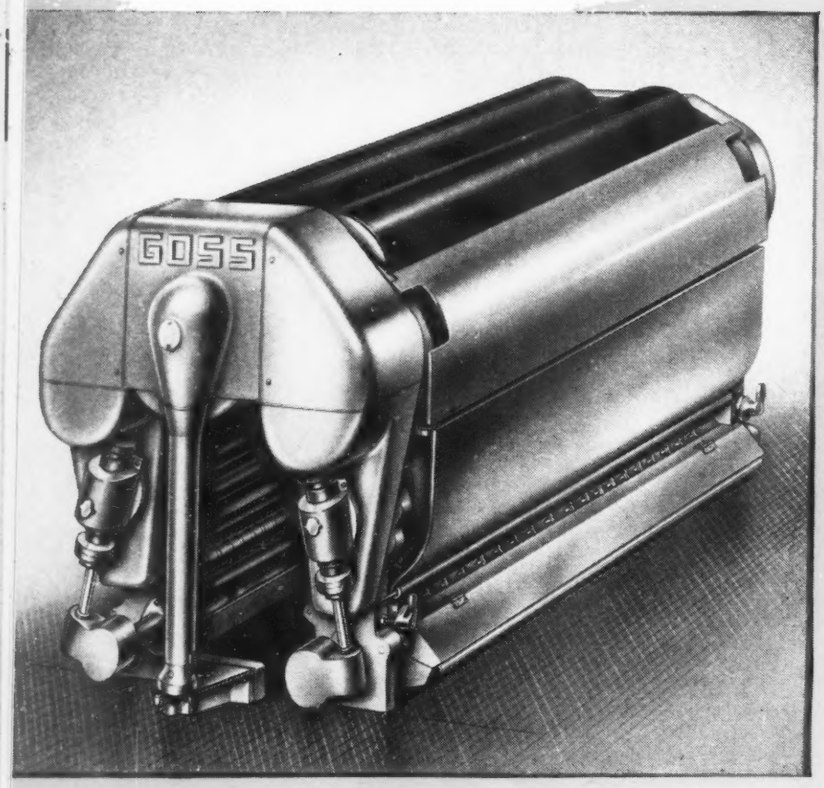
WITH A PRESS IN THE INTERMEDIATE* CLASS



Here's a press designed to meet a specific need—to answer the production requirements of newspapers between the "medium-size" and the large metropolitan daily. It's the new Goss Universal . . . a compact, web fed, semi-cylindrical rotary. Making the Goss line thoroughly complete from flat-beds to the Headliner, this new press capitalizes the combined 129 years' experience of the Goss-Duplex organization in building presses of all sizes. The new Universal is now in production, and orders are being completed on a normal delivery schedule.

*** Between the medium-size (tubular type) press and the high speed heavy duty (Headliner).**

READ ALL ABOUT IT!

The Goss Universal Press will print, fold, and deliver at a normal operating speed of 36,000 papers per hour. Maximum speed, 40,000.

- Unit design—single width, 2 plates wide—4-page capacity straight; 8-page, collect. Semi-cylindrical plate cylinders.
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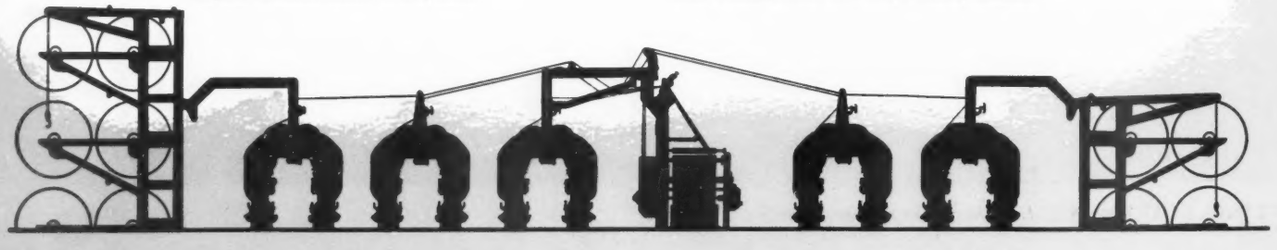
- Arch type units provide accessibility. Shipped assembled.
- Continuous feed ink system.

■ **Write for complete information on the new Goss Universal Press—*today*.**

THE GOSS PRINTING PRESS COMPANY, 1535 SOUTH PAULINA STREET, CHICAGO 8

Duplex Division: Battle Creek, Mich. ***Goss Printing Press Co., Ltd., Preston, England***



26 BASIC MACHINES

used by Printers, Lithographers, Binders . . . for

FEEDING CHRISTENSEN CONTINUOUS STREAM FEEDER—For flat-bed, rotary and offset presses and varnishing machines where high speed is essential.

DEXTER CONTINUOUS RELOADING CARDBOARD FEEDER—Feeds cardboard up to 40 point thickness to any make flat-bed printing press, also to flat-bed cutting and creasing presses, in sheet sizes up to maximum capacity of press.

CHRISTENSEN PILE SUCTION STREAM FEEDER—For flat-bed, rotary and offset presses and varnishing machines.

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AGENTS: Dallas, Denver, San Francisco, Los Angeles, Seattle, Toronto, Montreal, Winnipeg . . . and in Foreign Countries

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FOR MODERN COMPOSING ROOM SAVINGS

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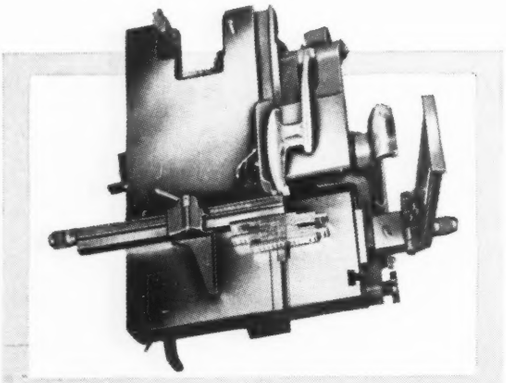
When you check the new Morrison features, see how they save minutes and hours in composing room operations, simplify all kinds of jobs, sawing, trimming, plain cutting or undercutting, angle and miter work, you'll appreciate this enthusiasm. They're easier to use, faster, more accurate, and much more versatile.

MORRISON MODEL 3-A SAW TRIMMER

With 30" x 18" table; 73-pica gauge and work-holder; emery wheel and guard; standard miter gauge; miter vise; saw blade and trimmers; waste receptacle; and many other features and optional accessories.



Exclusive . . . Radical . . .

On the Morrison, your work is clamped *back of the gauge frame* — a radical departure. You'll find this handier, easier to see, more accurate, and safer. Prevents slug fanning and jumping.

CHECK...

Only Morrison Saw Trimmer gives you ALL these exclusive features:

- Miter Gauge with Point Adjustment
- Patented Universal Saw Blade, with Saw Grinding Attachment
- Right and Left Hand Mitering — all Miters face up
- Miter and Lineup Gauge
- Any-Angle Gauge
- Automatic Index for Plate Cutting and Trimming Positions
- Swing out 135 Pica Extension Gauge
- Advanced Clamping Method

If you, too, want lower composing room costs, let us tell you where you can see a Morrison Saw Trimmer in use in your vicinity. Judge for yourself! Write today.

Symbol of Operating Economy

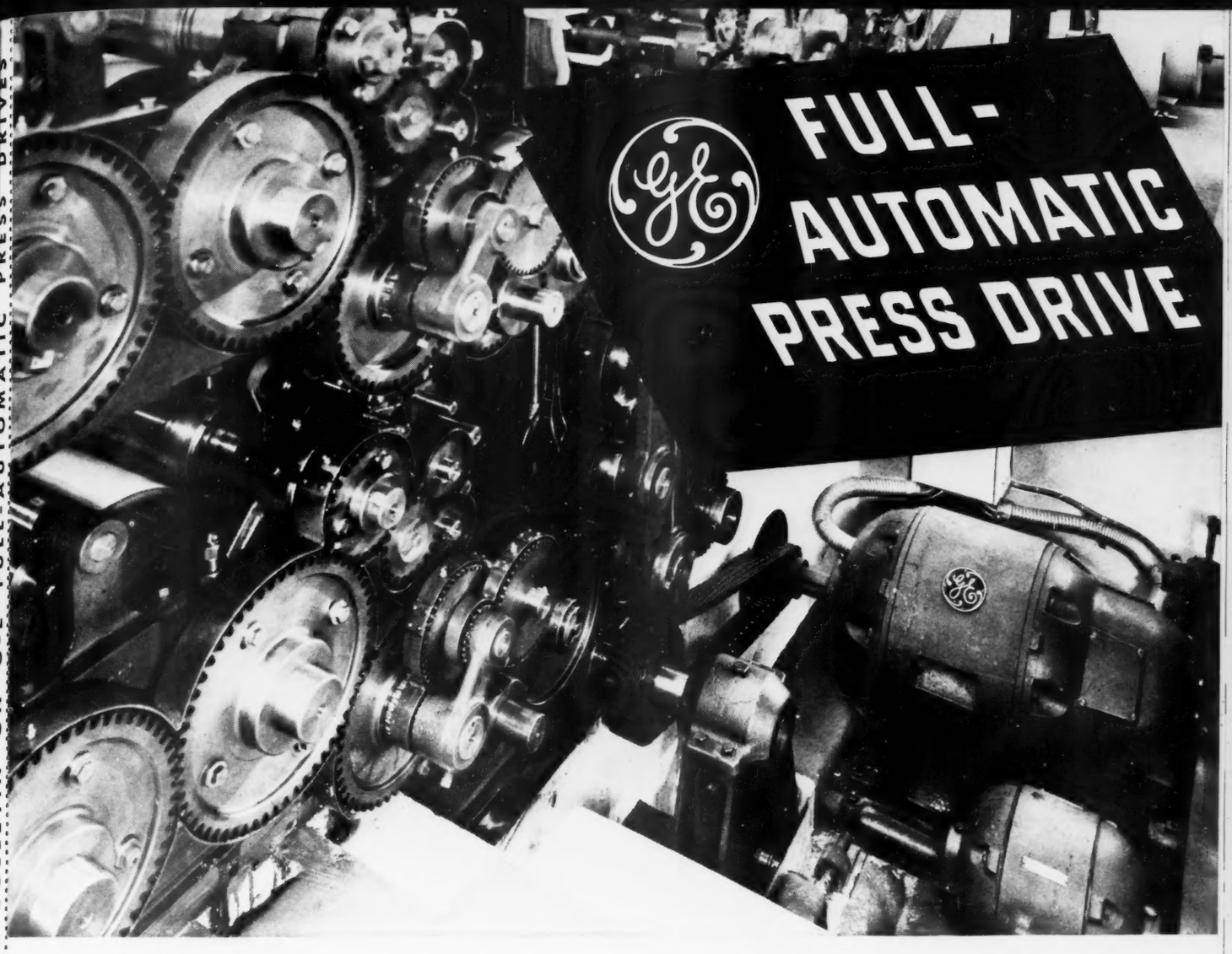
THE MORRISON COMPANY MILWAUKEE WIS.

THE *Morrison* COMPANY

125 W. MELVINA STREET • MILWAUKEE 12, WIS.

TEAR OUT THIS PAGE . . . IT IS YOUR BULLETIN ON G-E FULL-AUTOMATIC PRESS DRIVES

TEAR OUT THIS PAGE . . . IT IS YOUR BULLETIN ON G-E FULL-AUTOMATIC PRESS DRIVES



HERE ARE THE ADVANTAGES WHICH THIS SYSTEM OFFERS NEWSPAPER AND MAGAZINE PRODUCTION MEN:

SIMPLE AUTOMATIC OPERATION

All control functions are selected at push-button stations, which are conveniently located in the pressroom. These stations allow the operator to accelerate and decelerate the press, either rapidly or gradually. Selector switch provides for all desired press combinations to be set up electrically for full speed range control. Maximum speeds may be easily preset with a single dial adjustment.

SMOOTH PERFORMANCE

A specially designed motor-driven switching mechanism controls amount of resistance in drive motor secondary. Regular speed steps (up to 36) provide smooth and rapid acceleration and deceleration without danger to the web. Speeds are held approximately constant at all other times. A slow speed governor automatically provides smooth take-off from threading speed for presses geared 38,000 pph or above.

ADDED SAFETY FEATURES

A safety signal system prevents the press from moving as long as a SAFE button is in the circuit. When the presses are started, a warning bell cautions all personnel. Special protective circuit prevents accidental operation when panel is being tested. Web break detector and web breaker, if used, operate automatically to guard against web wraps and damage to the press.

REDUCED INSTALLATION AND MAINTENANCE PROBLEMS

Completely wired at the factory, control units require but a few cable connections for installation. The equipment is as compact as good engineering will allow—saves space and presents a neat appearance. Drive motors are designed for inverted suspension where desirable. Automatic protective devices eliminate all but routine maintenance on the equipment.

DEPENDABILITY

This system is providing steady, reliable service in more than 500 installations. Control devices are carefully engineered to do their particular jobs. Tri-Clad motors, in cast iron construction, offer protection against physical damage, electrical breakdown, and operating wear and tear. Selection of proper ratings for your press application is made by experienced G-E printing specialists who make certain that your press has all the advantages inherent in this drive system.

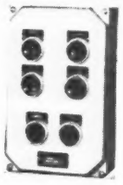
tear out this page and save

GENERAL ELECTRIC

653-1

THESE PERFORMANCE-PROVED UNITS HELP YOU GET THE MOST FROM YOUR PRESS

PUSH-BUTTON STATIONS



Connected to every part of the press where electric equipment is at work, these stations give fingertip control to all operations. Marked FAST, SLOW, JOG, STOP, SAFE, and RUN.

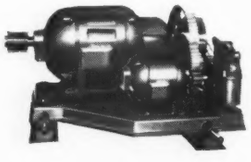
CYLINDER BRAKES

Mounted directly on the end of the impression cylinder, these double-disk type magnetically-operated brakes can stop the press in 8 to 10 seconds, from initial speed of 500 rpm, without assistance of main drive brake.

WEB BREAK DETECTOR

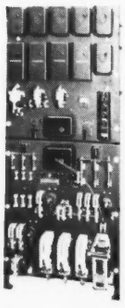
This polished shoe rides freely on the web, holds contacts open. When web breaks, detector signals press to stop and causes web-breaker to operate.

DOUBLE MOTOR DRIVE



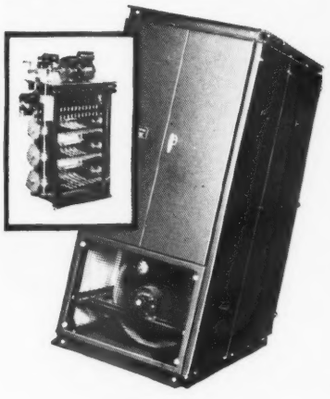
G-E press drives consist of a Tri-Clad wound-rotor induction motor for press drive service and a Tri-Clad squirrel-cage starting motor for jogging and threading. Overrunning clutch insures smooth transfer of power between the two motors, which are mounted on steel base, along with thrustor-operated band brake. Arranged for chain or V-belt connection to press shaft.

PRIMARY CONTROL PANEL



Contains the contactors, relays and timing devices which answer signals from push-button stations, and the protective devices which open and close circuits to every part of the drive system.

SECONDARY CONTROL



This totally enclosed cubicle contains the speed regulating three-phase cam switch (shown in inset), motor secondary resistors, and motor operated fan for heat removal. Factory wired and compact in design, it presents a minimum of installation problems. For drives 50 hp and below, the primary and secondary control panels are combined into one enclosure.

WEB BREAKER

This solenoid operated device used on presses geared to 38,000 pph or above limits amount of paper drawn into a wrap. Row of bayonets in a U-shaped frame sever the sheet.

SMOOTH, EFFICIENT OPERATION IS EASY—HERE'S HOW THE SYSTEM WORKS

Speeds are held approximately constant when the operator is not accelerating or decelerating because of the torque-load characteristics of the press. Maximum press speed may be preset by setting a disk dial in the secondary cubicle. This adjusts a limit switch to stop the pilot motor when the correct amount of drive motor secondary resistance is reached.

By depressing the FAST button continually, the operator can bring the press up to the maximum speed. Pushing the START button once allows the press automatically to come up to threading speed. The press may be accelerated to any intermediate speed by depressing the FAST button until the speed is reached.

Two-step anti-backlash control assures smooth starting for jogging and threading. Double-reduction slow-motion gearing provides a fixed threading speed (approx. 35 ft per min.).

Normally the press is decelerated by pressing the SLOW button until threading speed is reached. In order to stop the press completely, the STOP button must be depressed. However, when the STOP button is depressed while the press is operating at running speed, power is automatically removed from the drive motor and applied to the brakes for quick stopping.

The safety signal system prevents the press from moving as long as a SAFE button at any one of the control stations is depressed. When the JOG or RUN buttons are depressed, red lights go on, a warning gong is sounded, and the press will not start for an interval which is usually adjusted for 1½ seconds.

The safety signal system will automatically reset after each time the STOP or SAFE button is depressed.

RATINGS TO MATCH YOUR NEEDS G-E Full-Automatic Press Drives are available in a variety of sizes to fit your special needs.

In installations requiring drives of 50 hp and below, control devices are housed in one force-ventilated cubicle which combines primary and secondary dial-type control. Above these ratings, two separate control units are used as illustrated above.

Main motor ratings range from 40 hp to 200 hp. Net weight runs from 3400 lbs to 7430 lbs. Threading motor is rated either 5 hp or 10 hp. Your G-E printing specialist will help you pick the rating which will best answer your requirements.

HERE'S HOW G. E. CAN HELP YOU

The A-C Full-Automatic Press Drive, like other G-E products for the printing industry, is the result of careful designing and testing by G-E printing specialists. These engineers, long familiar with the problems of the industry, stand ready to help you plan your own application of modern electric equipment. A G-E sales engineer located in an office near your plant will discuss your requirements with you—show you how G-E press drives can help simplify your production problems. Get in touch with him now!

APPARATUS DEPARTMENT

GENERAL ELECTRIC

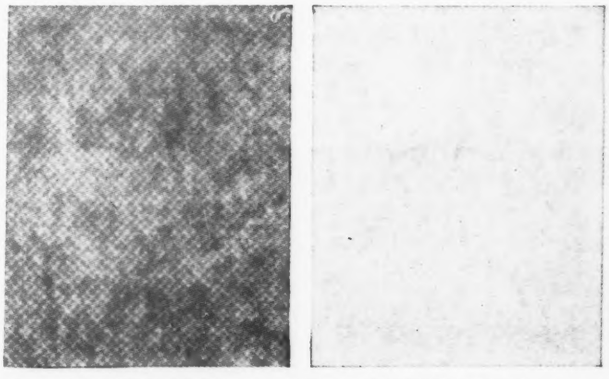
SCHENECTADY, N. Y.

tear out this page and save

These 3 tests prove "SPHEREKOTE" Newspaper Drawsheets reduce offset!

1 DIRECT COMPARISON TEST—Second impression cylinders on presses of several large metropolitan dailies were equipped with "Spherekote" Drawsheets on the left half, conventional drawsheets on the right. To eliminate variables, each test utilized the same impression cylinder, same paper, same man setting ink, same press. The printing plates were transposed during the run.

RESULTS: Halftone run against the conventional drawsheet (left) has considerable offset, muddiness of printing. Photo at right shows halftone cut run against "Spherekote" Drawsheet. *Reproduction is clear and sharp,* with good contrast.



2 INDEPENDENT LABORATORY TEST—Conducted by large news ink manufacturer, drawsheets were positioned as in test No. 1. Then a hole was cut in the web, allowing the plates to print through the hole onto both drawsheets about every fourth print.

RESULTS: Conventional drawsheet picked up and transferred almost the entire print back to the first impression side of web (left). "Spherekote" draw picked up and transferred *60% less ink* for striking proof of its ink-resisting qualities (right).

3 COMPOSITE OR COMBINATION DRAWSHEET TEST—For this test a special second impression cylinder drawsheet was made, split crosswise so that half the drawsheet was "Spherekote" and the other half a conventional drawsheet. This meant uniform ink and roller setting, uniform cylinder impression during test runs.

RESULTS: Halftone printed with "Spherekote" (right) shows clear, sharp results as compared with conventional draw (left).

The glass bead-coated surface of "Spherekote" Drawsheets offer the first really satisfactory answer to the problem of ink transfer, smudging and double printing. "Spherekote" Drawsheets last longer—many times twice as long as any other draw, will not beat down, and will resist marking by leaders. For complete information, write today to Dept. PE99, Minnesota Mining & Mfg. Co., St. Paul 6, Minn.

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also makers of "SCOTCH" Pressure-Sensitive Tapes, "UNDERSEAL" Rubberized Coating, "SCOTCHLITE" Reflective Sheeting, "SAFETY-WALK" Non-Slip Surfacing, "3M" Abrasives, "3M" Adhesives.

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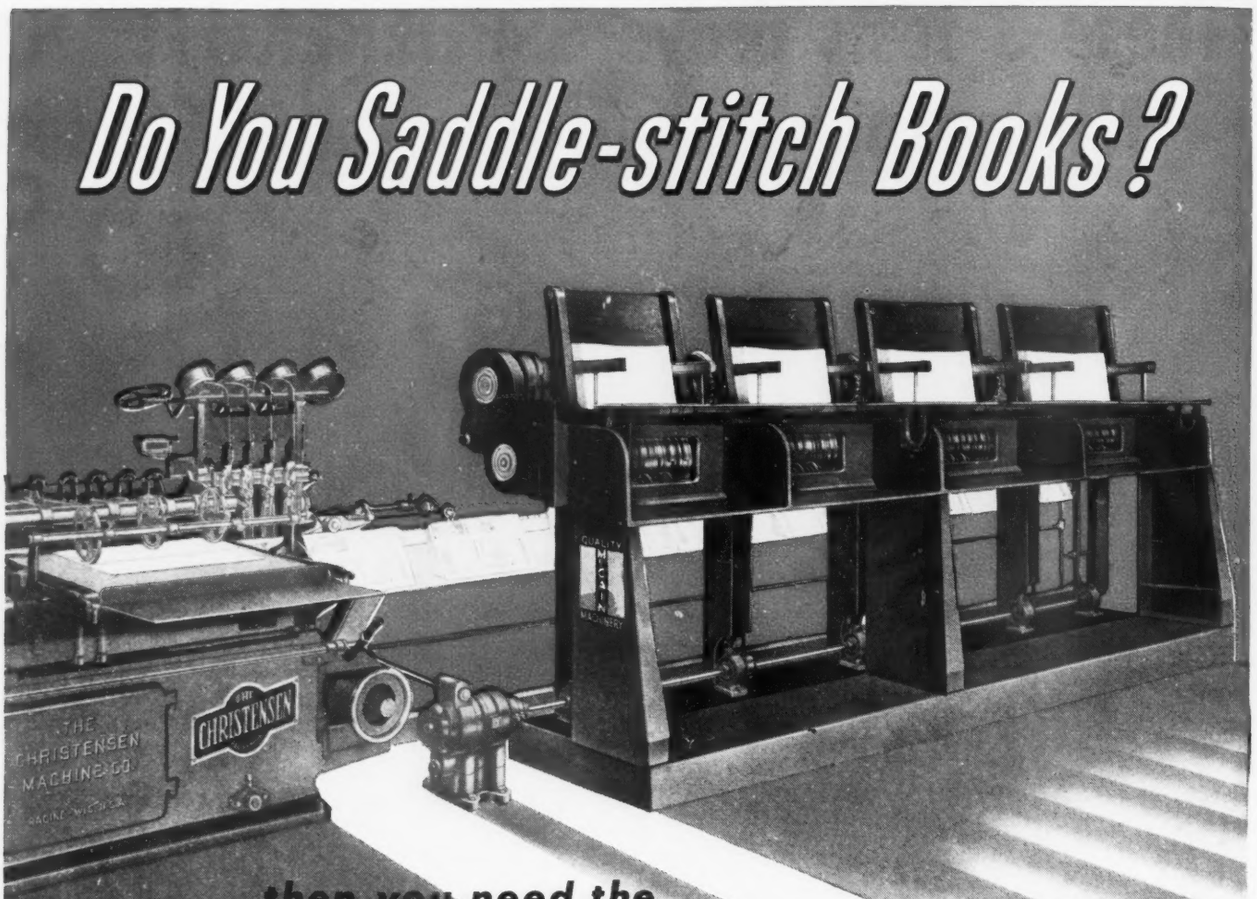
Do You Saddle-stitch Books?



then you need the McCAIN SIGNATURE FEEDER

The rotary action of "mechanical hands" which are part of this newly designed signature feeder will place up to 7500 signatures from each box onto the moving saddle of the stitching machine every hour in the day.

In this way the McCain Signature Feeder eliminates the tiresome hand work connected with assembly of saddle-stitched books, leaving bindery hands free to do more productive work.

The McCain Signature Feeder can be added to existing Christensen Gathering and Stitching Equipment or a complete installation may be made with from two boxes on up to as many as you may require.

Books may be automatically trimmed by addition of a shear-type trimmer to the Feeder-Stitcher combination.

Write your nearest Dexter office today . . . learn how Dexter machines can eliminate drudgery—put profits into your bindery

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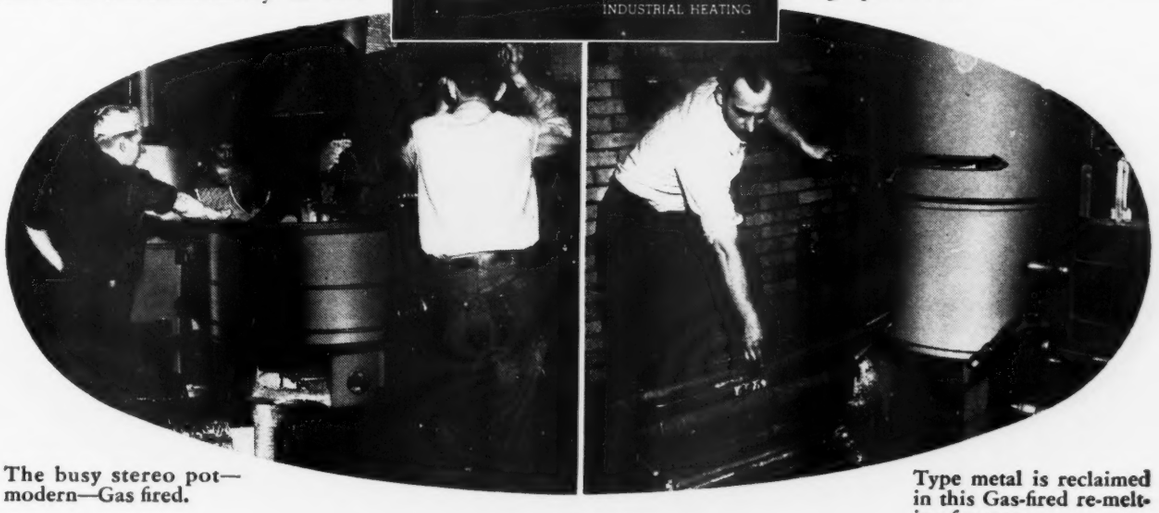
Modern plant of The News Tribune, Beaver Falls, Pa.

MODERN PUBLISHING calls for the same production-line techniques and equipment efficiency to be found in any successful manufacturing company. When The News Tribune at Beaver Falls, Pennsylvania, was modernized, the owners streamlined the mechanical department with equipment designed to accomplish this production-line operation.

Two of the important behind-the-news tasks were assigned to GAS, ideal fuel for all types of heat-processing in the graphic arts. The application of GAS to stereotype and type-metal melting operations is not unusual—the important point is that over a long period of experience mechanical superintendents have found that the speed and controllability of Gas Equipment is a real factor in press-scheduling. The News Tribune's pressroom superintendent, Hugh E. March, expresses his preference for GAS as follows: **"I've seen lots of equipment but GAS always has the edge for quick-heating and real economy. We publish 15,000 copies of The News Tribune every day and our Gas Equipment is mighty important in getting that job done on time."**

In present-day newspaper publishing modern Gas Equipment renders essential service. But GAS is also an important factor in other graphic arts processes, such as ink-drying, paper-curing, electrotyping. You'll find efficient Gas Equipment available for these and other heat-processing operations.

MORE AND MORE...
THE TREND IS TO GAS
FOR ALL INDUSTRIAL HEATING



The busy stereo pot—modern—Gas fired.

Type metal is reclaimed in this Gas-fired re-melting furnace.

AMERICAN GAS ASSOCIATION
420 LEXINGTON AVE., NEW YORK 17, N. Y.

Uncle Mat says--Prominent Newspapers from Coast-to-Coast use *Matrix Contrast Service*

LARGER NEWSPAPERS USING MATRIX CONTRAST SERVICE

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Augusta (Ga.) Herald
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Camden Courier-Post
Binghamton Press
Buffalo Courier-Express
Buffalo Evening News
New York Herald Tribune
New York Morning Telegraph
New York Daily News
New York Times
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1. Publishers now realize more than ever the added value of Matrix Contrast Service due to their greatly increased operating costs. The reduction of approximately one-third of all errors in linecasting machine operation means valuable minutes saved not only in machine and operator time, but also time of proofreaders, floor men, and others.

2. Linecasters swear by Matrix Contrast Service because the highly increased visibility of reference marks enables them to "see what they set" *without* eyestrain.

3. With six service branches from coast-to-coast – located in Boston, New York, Chicago, St. Louis, San Francisco and Los Angeles, our service men can give immediate attention to processing of all sorts and new matrices.

Follow the leaders and investigate the time and money savings offered by Matrix Contrast Service.

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Detroit News
Minneapolis Star & Tribune
St. Paul Dispatch & Pioneer Press
St. Louis Globe-Democrat
St. Louis Post-Dispatch
St. Louis Star-Times
Cincinnati Enquirer
Cleveland Plain Dealer
Houston Post
Beaumont Enterprise
Milwaukee Journal
Los Angeles Examiner
Sacramento Bee
San Diego Daily Journal
San Diego Union & Tribune-Sun
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Empire State Building, New York 1, N. Y.—326 W. Madison Street, Chicago 6, Ill.—1105 Trenton Street, Los Angeles 15, Calif.—Sole licensees of the Percy L. Hill Matrix Contrast Patent No. 1,796,023, other patent pending. European Agents: Funditor, Ltd., 3 Woodbridge St., Clerkenwell Green, London, E. C. 1.

Matrix Contrast Service

Specialty Letterpress Plant Caters to Select Clientele

MANUEL K. HORWOOD is one of that group of select printers in the United States who does his printing from foundry type and photo-engravings produced from reproduction proofs. He is owner of the Horwood Printing Co., a small commercial letterpress shop located in downtown Cleveland. The majority of the work passing through the Horwood shop is of a specialized nature, with approximately 90 per cent of the volume being derived directly from advertising agencies. That is, the work consists of brochures, booklets, announcements, stationery, mailing pieces and advertising composition.

But this all-foundry type policy is not the only feature of this small plant. Careful planning, modern equipment and working materials, customer's viewpoint, well thought-out floor plan, and other such points, characteristic of the printing plant founded on a quality basis, are evident at every turn. Perhaps the most noticeable is the neat appearance and cleanliness of the plant in general. To the person who believes that Cleanness is Holiness then Mr. Horwood must be an effective exponent of the idea.

The plant occupies 2200 sq. ft. of floor space which is divided into four separate rooms or what may be appropriately called, divisions. Mr. Horwood explains that the shop was divided in this manner to confine the dust from the offset spray guns on the presses and noise of the presses to that one particular department—the pressroom. The offices, which compose one of the four separate rooms, are sub-divided. One is the general office for the clerical help and the other is Mr. Horwood's private office, planning and layout room. The composing room occupies another of the rooms and has both south and east light from large plate glass windows on two sides. The lockup department and pressroom are combined to form another room which faces directly to the rear of the composing room. To the left of the pressroom toward the inside of the building is the fourth room which houses the paper storage, bindery and shipping department.

Tools and working materials are kept in their proper places when not in use. Numerous waste containers are located in useful spots throughout the shop and are emptied regularly without fail.

Paint Suitable to Interior

Because of this south-east exposure, walls and ceilings are painted a two-tone flat green and floors a gun metal grey. This was done to keep the intensity of inside lighting on an even ratio on both dark and bright days. On bright days, the glare is reduced by the effect of the grey floor and the green walls. On dark days, artificial lighting brightens the rooms by its reflection on the light green ceiling and upper half of the walls. The lighting system is comprised of both fluorescent and incandescent lights which are located in the most advantageous positions for the workmen.

Composing Equipment

Equipment in the composing room consists of 18 uniform steel type cabinets of 24 cases each and containing a total of 432 fonts. Foundry type fonts (many of them double and triple fonts in one case) ranging in size from 4 pt. to 144 pt., are supplied by such well known foundries as ATF and Bauer.

Proofs Inspected with Glass

A No. 3 Vandercook Proof Press and a C&G Saw-Trimmer are two important items of equipment used in this department. The impression cylinder for the proof press is packed at all times with a hard packing for pulling reproduction proofs. Mr. Horwood requires his workmen to use 10X linen counters to examine the sharpness of all reproduction proofs. He remarked: "It is amazing to discover all the little imperfections in type, not readily perceptible to the human eye, which are picked up by the camera lens."

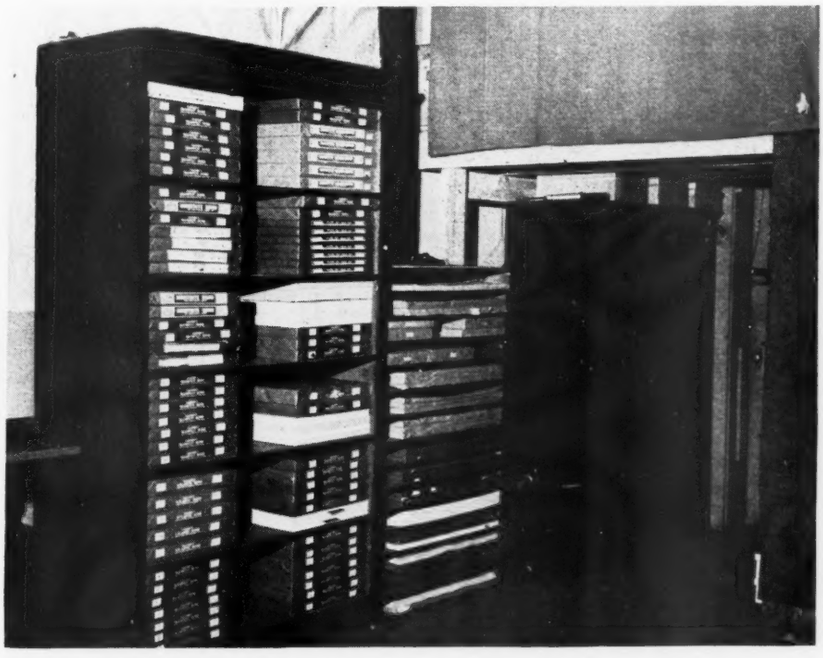
Three galley storage cabinets accommodating 300 galleys complete the composing room equipment.

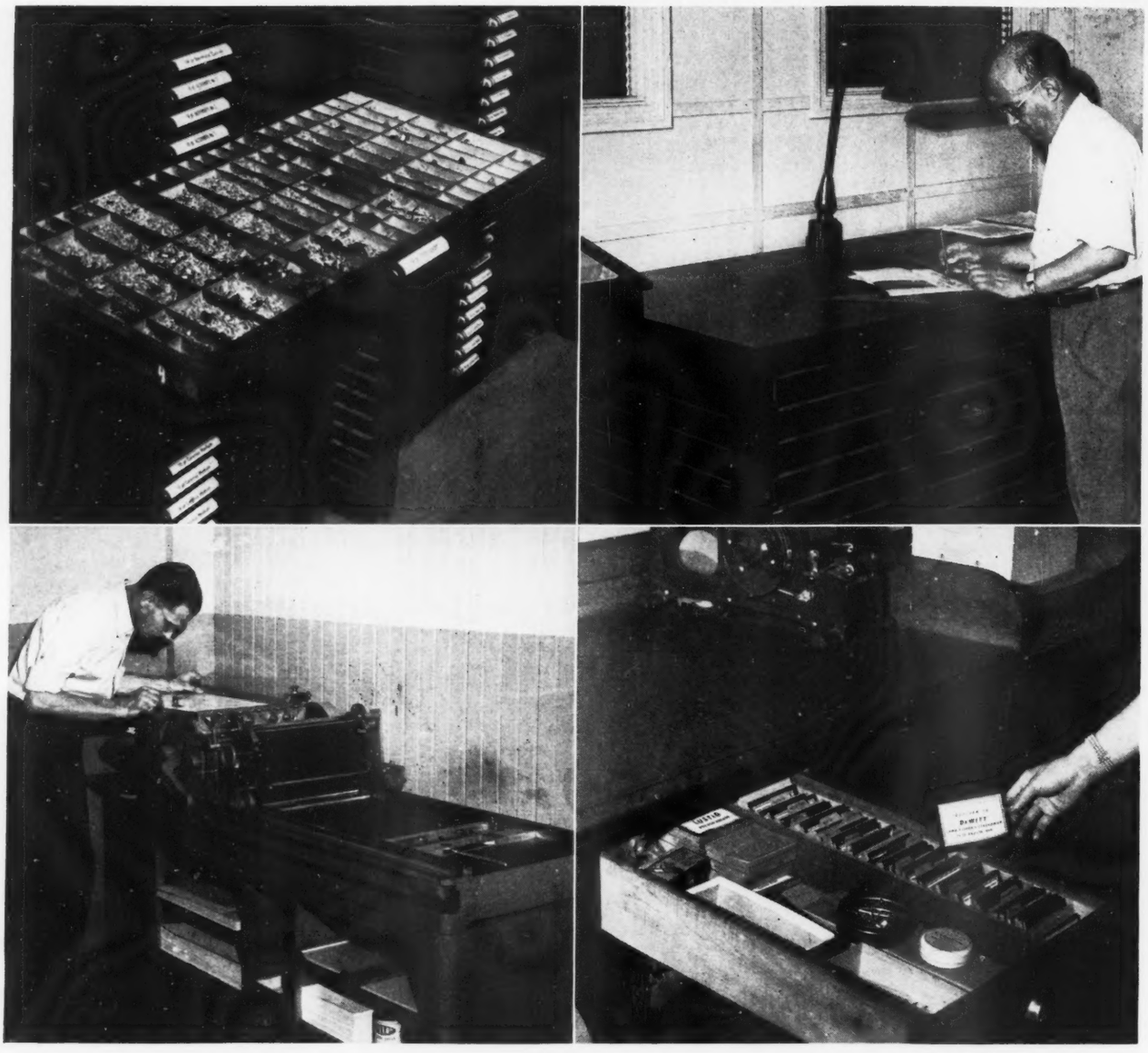
Type Faces Always Printable

Another policy pursued by the Horwood firm in striving toward better quality in the work produced, is the frequent replacement of foundry type faces. Mr. Horwood explains that the foundry type is thrown away and replaced after "long runs" of 10,000 impressions or more. This assures his customers of the cleanest, sharpest reproduction proofs possible.

With the introduction of plastic molding in the electrotyping process, a small percentage of the forms produced by this small shop, are electrotyped. The ma-

Part of the paper stock storage in the Horwood plant. The balance of the paper storage section is kept just as neat and clean as you see it here. The curtain covering the balcony floor, behind which are kept envelopes of many sizes, helps maintain the appearance of neatness. Because of the nature of his clientele, Mr. Horwood is able to anticipate his customer's paper requirements. When an order comes to the plant, the job can be gotten out quickly because the particular kind of paper is there upon which to print it.





Views Taken in Plant of Cleveland's Horwood Printing Co. — At upper left is shown one of the foundry type cases in which cursive and script faces are laid. Sawdust is used to protect the types one from another so as to avoid scratching the faces or rounding off kerns or overhanging strokes. Horwood admits the sawdust is a nuisance and calls for meticulous care upon the part of the compositor to prevent sawdust particles lodging between the letters in a line. However, it is a valuable idea in connection with the use of expensive foundry type having cursive or script letter characters.

At upper right, Manuel K. Horwood, proprietor of Horwood Printing Co., is working at the layout table in his private office. In addition to selling his services to a select list of particular customers, Mr. Horwood supplements his services by making layouts, both for customer and/or the back shop.

At lower left is shown Superintendent Joe Glenn inspecting a reproduction proof which has just been pulled on the Vandercook press. Mr. Horwood requires employees to inspect reproduction proofs with a 10X Linen Counter for best possible photographic reproduction. There are over 400 fonts of hard foundry type in the plant, the printing qualities of which are watched meticulously to eliminate any possibility of the camera lens reproducing an imperfection which is not readily discernible to the human eye without the aid of a glass.

Lower right: If you are a regular client of the Horwood Printing Co., you will receive proof envelopes and/or finished printing in packages bearing a neat preprinted label like this one. The gummed labels measure about 4 in. wide by 3 in. high. Each customer's label is printed in either a different pattern or in a varying color of ink. Illegible crayon scrawls on envelopes or packages often cause the delivery boy or even the shipping clerk in a firm to deliver the package to the wrong person—all of which is annoying to the customer—and to Horwood himself.

jority of the forms, however, are hand-set, proofed for reproduction, photographed and zinc plates made from them.

An extremely wide choice of foundry faces and sizes are available in the composing room to suit the various needs and requirements of Horwood's customers. If the size requested is irregular or is not carried, then that type face is set in a larger size, photographed and reduced proportionately. A customer specifying a 9 pt. face of a certain type on a layout is not going to be satisfied or happy, says Mr. Horwood, if 10 pt. is substituted in its place because the 9 pt. size was not available.

Sawdust Cushion

Of interest to any compositor and to the man who pays the type bills, is the sawdust found in some of the type cases in the Horwood shop containing the most expensive cursive and script foundry faces. With a considerable investment

This space and quad rack contains material ranging from copper thin spaces from 18 pt. up to and including 72 pt., including spaces and en and em quads up to 60 pt. The 72 pt. quads however, are en set. A compositor setting a line of foundry type uses this rack frequently for letter spacing and also because the capacity of spaces and quads in the type cases is not always sufficient to finish a job.

placed in such types, the sawdust protects the types against damage while moving the case or handling the type. The sawdust acts both as a cushion and protection against the breakage or rounding off of the kerns and protruding strokes of the characters.

Centralized Spacing Rack

A self-devised spacing material rack is an interesting piece of equipment. Located within arm's reach of a working top, it aids the compositor immeasurably in letter-spacing and justifying various type lines to be made up into a form. It is an open front rack containing separate compartments for each size of spacing material ranging from the copper thin spaces to em quads. These are available in sizes from 18 pt. to 72 pt. Constructed of wood, the rack measures 5 ft. high by 30 in. wide. It is 14 in. deep at the bottom, and slopes backwardly to about 6 in. depth at the top. The smaller point-size spacing material is kept in the upper compartments, the larger point sizes filling the compartments gradually, with the 72 pt. material being kept in the lower row of compartments.

Other items of equipment in the make-up department include a Rouse Vertical Miterer, a steel imposing top on a wooden base, and a Hacker Page Frame Gauge. This latter piece of equipment is an integral part of the Horwood precision operation which besides its regular function, is also used for squaring-up cuts.

The Pressroom

The pressroom is as neat and compact a unit as the remainder of the shop. Equipment is composed of two V-36 Miehle Vertical presses, a 12 in. by 18 in. Kluge Automatic press, and an 8 in. by 12 in. Chandler and Price hand-fed platen press. Both Verticals are equipped with ATF Offset Spray Guns which are attached to the press. The compressor for these guns is located in the bindery to minimize noise in the pressroom.

Moving Stock About

Substituting for stock tables in the pressroom are four movable bindery trucks which are used to convey stock from paper storage to the presses and after printing, the finished job is rolled to the bindery or shipping department. Mr. Horwood has found that these trucks eliminate much physical exertion in paper handling, as well as saving time in moving stock to and from the pressroom. The trucks measure 27 in. wide by 20 in. deep by 66 in. high and are equipped with rubber wheels. Each truck is fitted with two shelves which are enclosed on three sides.

Although metal furniture is principally used in locking up forms for the presses, Mr. Horwood insists that wooden reglets or furniture be placed between the inside edge of the chase and the metal furniture. This is to prevent slippage while the form is being run on the presses. Challenge Steel Furniture and Challenge Hi-Speed Quoins, 4 in. to 12 in. in length, are employed in this operation.

Ink Can Rack

Another innovation in the pressroom is an open-front wall rack for the storage of various kinds of ink. The rack was constructed so that each shelf is only high enough to accommodate a 1 lb. can of ink. This prevents the piling of ink cans on top of one another and also makes it easier for the pressman to look for a particular kind of ink. Measurements of the rack are 3 ft. wide by 7 ft. high, by about 6 in. deep.

Paper When Needed

The bindery houses a 34 in. Craftsmen Paper Cutter, a Challenge Paper Drill and an Abrams Jogging Machine. Combined with this department in the same room is the paper storage. A noticeable part of this storage of stock is the large supply of different kinds of paper kept on hand for a small shop. But Mr. Horwood has the answer to the reason for handling such a wide supply. It is another example of good planning for future orders. This policy is followed to overcome any delay which might occur in securing a particular kind of paper for a job which a customer requests. This delay might mean the difference between getting or losing an order, or perhaps even getting the job out later than the date specified. Many nationally known brands of paper are stored on the open stock shelves and are readily accessible when needed.

A heavy green canvas curtain is used to partition off a section of this room and to also enclose a balcony where open stock and miscellaneous items are stored. This is another way to secure neat appearance. It also prevents dust and dirt collecting on the stock.

Printed Shipping Labels

Another instance of customer attention and regard, are the shipping labels placed on all the printed matter which leaves the Horwood plant. Each regular customer's name and address is attractively printed on shipping labels for proofs and printing he will receive. The labels are printed ahead of time and are padded in pads of 100. Each customer's label is distinguished by a different colored ink which aids the shipping clerk to quickly locate a particular label for an order. Such labels also prevent any mistakes occuring in a customer's name and address and it is particularly pleasing to the customer to see his name and address in type. The padded labels are kept in separate compartments in a drawer of a work bench located in the shipping department.

Mr. Horwood believes that neat appearance, even in shipping operations, is symbolic of a well-run business and has far-reaching effects in impressing the customer whom he is serving.

Chicago Branch Opened

Announcement has been made by David W. Schulkind, President of the E. P. Lawson Co., of the establishment of a Chicago branch to handle sales and service of Lawson hydraulic clamp paper cutters and bindery equipment in the Central States area. The Chicago Branch is located at 628 S. Dearborn St.

Arthur T. Walker, Central District Sales Manager for Harris-Seybold Co., died in San Francisco on September 6 following a series of heart attacks suffered shortly after he arrived in California to attend the International Association of Printing House Craftsmen's Convention. Mr. Walker had been with Harris-

A. T. Walker, Central District Sales Manager for Harris-Seybold Co., who passed away on Sept. 6.

Seybold since 1916, serving for many years as assistant to the vice president in charge of sales. Born 57 years ago, he joined the company as assistant to the production engineer, transferring to the sales organization in 1921. He received his appointment to the Central District in 1945. Included in his trade association activities were memberships in the Cleveland Typothetae of Printing Industry of America, Lithographers National Association, International Association of Printing House Craftsmen, National Association of Photo-Lithographers, The Lithographic Technical Foundation and the Cleveland Litho Club.

30th Craftsmen's Convention Convenes

San Francisco is Host to More than 700 — Printing Week and Club Management Discussed — Departmental Clinics Offer Excellent Speakers.

By STAFF WRITER

GENUINE interest in the affairs of the International Association of Printing House Craftsmen plus the lure of seldom-seen enchanting scenery, drew over 700 Craftsmen and their ladies to the 30th Convention in San Francisco. The convention opened at the Palace Hotel on Sunday night, September 4 and continued through Monday, Tuesday and Wednesday, September 7. Individual membership in the Association consists principally of production and mechanical executives in all branches of the commercial printing industry, as well as equipment manufacturer and supplier representatives.

It was revealed by President Gradie Oakes and Executive Secretary Pearl E. Oldt that the Association has had a lusty growth during the past year. Membership now totals 11,266 members with a total of 85 separate clubs. During the past year seven new clubs were chartered by the International Board of Governors. Treasurer E. T. Samuel reported an operating surplus of $6,566.86 for the year ended June 30, 1949. By means of a large pie chart, Executive Secretary Oldt showed that his total budget amounted to $11,375 and total expenditures were $10,532.56, leaving a balance in his fund of $842.44. President Oakes reported that during the year he had traveled a total of 20 thousand miles to make addresses to 43 local clubs and other organizations. Next year's convention will be held at Hotel Stevens, Chicago, on September 10, 11, 12, and 13. The 1950 convention at the Stevens Hotel will be held concurrently with the National Graphic Arts Exposition which will take place at the International Amphitheatre, Chicago, September 11 to 23.

The entire San Francisco Craftsmen's Club convention committee under the leadership of Oscar Pedersen, General Chairman and Co-Chairman Thomas E. Cordis together with Club President Tom F. Hislop, and Program Chairman Amadeo Tommasini, planned the convention carefully and thoughtfully. Ladies' convention program was under the supervision of Ladies' Chairman Mrs. Tom Finn, Mrs. Oscar Pedersen and Mrs. Tom Hislop.

Opening Session

The opening session occurred on Sunday night, September 4 in the Gold Room at the Palace Hotel. At this time, the formal ceremonies were conducted. President of the San Francisco Club Tom Hislop and General Convention Chairman Oscar Pedersen make the Craftsmen and their ladies feel welcome. California State Printer Paul Gallagher was the principal speaker. Also at this time, President Gradie Oakes made the traditional appointment of Sergeant-at-Arms. This year he called upon Phoenix, Arizona's Andy Chuka to serve in that capacity.

Monday Morning

At the Monday morning, September 5 session, International official business having been disposed of, the balance of the program was devoted to Printing Week Observance. During the past few years, the International Association has sponsored the observance by assisting local clubs in planning their programs. The observance is gathering momentum as was evidenced by addresses of a number of speakers from local clubs. The program was under the supervision of International Public Relations Chairman Gordon Holmquist of Los Angeles. Mr. Holmquist, after making introductory remarks, turned the meeting over to Edward Stoeher of the Newark (N.J.) Club who introduced the speakers.

Glen G. Peterson, President of the Detroit Club, described excellently the observance of Printing Week in Detroit. At the banquet which was held as the climax of the week's observance, 900 people attended, 69 percent of whom were buyers of printing. Mr. Peterson stated that Printing Week observance is a civic undertaking and should be participated in by all groups associated with the Graphic Arts industries. It is also necessary to secure the cooperation of employer and employee. In the case of the Detroit observance, the cooperation of the Graphic Arts Association was secured. All activities were financed through the association. There were 65 types of businesses concerned with the Graphic Arts participating. Television, radio, newspapers and trade magazines were utilized in securing the interest of the public.

Balto's First Try

Baltimore's First Try at Printing Week was discussed by Harry R. Christopher, Fourth District Deputy Representative and President of Baltimore's Paper Supply Co. In arranging for Baltimore's first joint Graphic Arts celebration of Printing Week, Mr. Christopher related that the interest of the Graphic Arts Association and the Litho Club were enlisted. Financing was done by the Graphic Arts Association. There was no difficulty in getting the mayor to sponsor Printing Week. Somewhat whimsically, Mr. Christopher remarked he found the mayor sponsored Banana Week during the same period. Promotional activities included sending letters to all ministers in the city, asking them to mention printing week from their pulpits. Libraries donated display space as did local merchants who carried displays in their store windows. Supply houses carried banners across their trucks.

Edward H. Christensen, Production Manager, Central Typesetting and Electrotyping Co., Chicago, discussed Printing Week celebration in Chicago this year. He said the promotion of and preparation for the observance is an all-year job. Among other activities, some thousands of circulars were distributed to try to make the public conscious of the printing industry. Col. McCormick, Editor of the Chicago *Tribune*, devoted

two Saturday issues to feature articles on the life of Benjamin Franklin.

Club Management Luncheon

Next in order on the program was the Club Management Luncheon, presided over by Third Intl. Vice President J. Homer Winkler. P. D. Nielsen, Superintendent of Moore Business Forms, Emeryville, Calif., discussed *Soliciting New Members.*

Utilize the members who are willing to give unstintingly of their time in securing members. Supply men members are more apt to have more time to devote to membership activities. Inspirational talks should be given at meetings. The prospective member should be informed of the basic fundamentals of the organization. Membership is the life blood of any club. The chairman and his aides on the committee have a job of selling to do.

The awards for membership Solicitation Activities were made by Third Vice President Winkler as follows: (1) First prize awarded to Syracuse (N. Y.) Club which achieved a net gain of 65 members or 153 per cent membership increase. Membership Chairman John V. McCarthy received the award. (2) The second award went to the Louisville (Ky.) Club which secured a total of 30 new members or a net gain of 60 per cent. Ralph E. Graybrook directed membership activities. (3) Third prize went to the Sacramento (Calif.) Club which increased its membership by 16, or 50 per cent. Kenneth Bonnell was membership chairman.

Making Meetings Click

Wm. P. Gleason of the Colonial Press, Inc., New York, N. Y., discussed *Making the Meetings Click.* His advice to club executives was to put distinguished men on committees but to reserve chairmanship appointments for the men who will work. In his club, the educational committee "works at" the job of securing top-notch speakers for meetings. At the first meeting, the aims and purposes of the committee are outlined. The club president (who at present is Henry A. Schneider) attends all educational committee meetings. The committee never plans more than two meetings ahead. The reason is that if an opportunity is afforded to secure a prominent speaker, the committee is free to get him. Two or three members are appointed from the committee to plan each meeting ahead of time. Plans for meetings are submitted to the Board of Governors for approval.

Gleason's advice to educational chairmen is to telephone the speaker if he lives out of town because arrangements can be perfected more easily than through correspondence. After a speaker accepts the invitation to address the club, don't forget him. Follow up. When inviting a speaker, tell him what you want him to talk about. Specify whether you prefer a general, elementary or highly technical talk. He said: "I can't emphasize this statement too much."

The speaker continued, "Unfortunately, it is a national problem in getting members to mail in their club meeting reservation cards. For instance, perhaps 180 members will return their cards to the club secretary but 300 will show up for the meeting." He also suggested that the speaker be met at the station or the airport and escorted to his hotel at which a room previously has been reserved, and to escort him from the hotel to the meeting place. Among other suggestions made by Mr. Gleason were that arrangements should be made ahead of time for some one to turn the lights off and on if the speaker uses a projector or lantern. In his club, the speaker stated, a sufficient number of program schedules are made out for each meeting so that everybody concerned with the meeting will know what is coming next. In appreciation, a scroll is presented to the speaker after the conclusion of his address.

Officers Elected Chicago in 1950

At the closing business session, the following officers were elected:

President—Russell J. Hogan, Plant Manager, Blanchard Press, New York.

First Vice President—Fred C. Baillie, Superintendent, Canadian Bank Note Co., Ottawa, Can.

Second Vice President—J. Homer Winkler, Technical Advisor, Battelle Memorial Institute, Columbus, O.

Third Vice President—Gordon J. Holmquist, Cole-Holmquist Press, Los Angeles.

Treasurer—Edward T. Samuel, President, Samuel & Walker, Printers, Cleveland.

While only more or less a formality in this instance, the invitation from the Chicago Club to meet in that city for the 1950 convention, was accepted unanimously. The meeting dates are September 10 to 13, inclusive. Meeting place is Hotel Stevens. As will be the case with other Graphic Arts groups, the convention dates have been made concurrent with the National Graphic Arts Exposition which will be held at International Amphitheatre, September 11 to 23, 1950.

Educational Programs

Thos. P. Mahoney, Intl. Educational and Research Commission Chairman, spoke on *Preparation of the Club Educational Program.* Among the suggestions made were that the program chairman should immediately appoint a vice chairman to serve when the chairman may be absent from town. After listening to Chairman Mahoney one concluded that isolated clubs should have no great difficulty in arranging monthly educational meetings. For clubs of the smaller cities, it is possible to arrange to have the same speaker in the same area on a number of successive nights so the speaker can arrange an itinerary which will permit his appearance before a number of clubs during the one trip. Mahoney advised not to overlook the speaking talent within your own club. Another suggestion was that the program chairman check with local representatives of manufacturer and supplier companies to find out when executives willing to speak before Craftsmen's clubs will be in the area. This of course, calls for flexible club meeting dates.

"Locally," the speaker advised, "don't overlook the possibility of cooperation with your local ad club, employing printer groups, and the service clubs. Another suggestion is to secure speakers from among customers of the Graphic Arts such as advertising agency men or the advertising manager of a local company. A good source are newspaper editors, mechanical superintendents, librarians, high school teachers and literary figures. It is also possible for a group discussion leader to arrange a meeting to discuss a book such as the Eighth Production Yearbook. Another talk may be planned to discuss an article in one of the trade journals."

Mr. Mahoney exhibited a number of annual program calendars as issued by the program chairman of the Cleveland Club, the meetings for which are planned a year in advance.

Club Bulletin Awards

Chairman Winkler then called upon Lee Augustine, Vice President of the Printing Machinery Co., to award a number of cups to the winners of the Club Bulletin contest. Harold Crankshaw, of the Washington (D. C.) Club served as chairman of the contest. Clubs were awarded to the winners as follows:

For bulletins of clubs have a membership of 150 or under: First, Toledo (O.) Club; Second, Fort Wayne (Ind.) Club, and Third, Utica (N. Y.) Club. Incidentally, the Toledo and Utica Clubs are repeat winners from last year.

For bulletins of clubs having a membership over 150: First, San Francisco Club; Second, Chicago Club, and Third, Honolulu Club.

Poster Stamp Contest

Edw. W. Stoeher of the Newark (N. J.) Club, presented a cup to Glenn M. Pagett for the winning design in the Printing Week Stamp Contest. The cup was accepted for Mr. Pagett by Past President Guy Bradley of the Indianapolis Club. Mr. Pagett is Plant Superintendent of Typographic Service in Indianapolis. Runner-up awards of certificates were also made to a number of designers in other clubs, among them being Indianapolis, Honolulu, Chicago, Baltimore, Columbus, Buffalo and Ottawa (Can.).

Poster Contest

Awards were made by Public Relations Chairman Gordon J. Holmquist to the winners of the Printing Week Poster Contest. The first of these involved entries from clubs of 125 members or less, in which class Grand Rapids (Mich.) won top honors. In the second class, consisting of more than 125 members, Baltimore's design was accepted.

Franklin Plaque

A plaque bearing a likeness in relief of Benjamin Franklin, was awarded to Perry R. Long by J. L. Frazier, editor of *Inland Printer.* The award was made on

the basis of the outstanding Craftsman for 1949. Perry R. Long is Executive Vice President of the Bryan-Brandenburg Co., Los Angeles and is the first president of the Intl. Association of Printing House Craftsmen. This is the first time the award has been made. In the future, the person designated to receive the award will be chosen by votes of local clubs.

Typographic Clinic

ON Monday afternoon, September 5, two clinics went into session. The first of these was the Typographic Clinic and was presided over by Intl. Treasurer Edward T. Samuel. Paul O. Giesey, Advertising Typographer of Portland, Ore., discussed *Practical Typography*. It was evident that Giesey is in love with his profession.

At the outset, he enumerated and identified the six type families as follows: (1) Gothics, such as Futuras, Alternates and Franklin. (2) Old Style Romans, such as Caslons and Garamonds. (3) Modern Romans, such as Bodonis, Century and Onyx. (4) Texts, such as Cloister, Old English, Shaw and American. (5) Decoratives, such as Brush, Cursives, Scripts and Occasionals. (6) Transitionals, like Baskerville and Scotch Roman.

He stated there are now extant more than 8500 type faces. Most all perform a definite function.

Giesey asserted that type faces, like humans, have personality and sex. They are capricious, conservative, elderly, jolly, speedy, slow, serious, baroque, comic, prosaic, theatrical, lowbrow, high-tone, brutal, or refined.

To corroborate his contention, Giesey quoted from William Feather's definitions or classifications of certain type faces:

"Baskerville is masculine—no doubt about it. It is cosmopolitan, it is mature and well groomed—not too formal—but clean and precise. It is not a pretty face; it is a handsome face.

"Caslon is feminine, elderly, gray. It is lovable, motherly, and makes no apology for its whimsical traits.

"Garmond is a brunette, young and charming. There's something about her—vivacity, and something more than that, for you never tire of her.

"Bookman wears a slouch hat and putters around the yard, with a pipe in his mouth and tolerance in his soul. He isn't handsome; he isn't dashing, but he's a restful, friendly creature.

"Goudy is a blonde—a trifle buxom, fancying frills and furbelows. She has grace and poise, and a soft, melodious voice which is best appreciated in leisurely moments.

"Century is prosaic and practical—no frills to him. He makes no pretense of being anything but a hard worker."

"Yet again," remarked Mr. Giesey, "Mr. Feather's caution does not always apply in mating faces. I am thinking now of Nubian, Hobo, or Cooper Black, with perhaps Goudy or Garamond Light. It's a rather incongruous combo."

Mr. Giesey then continued: "Each job of creative printing is custom-made. Each requires different faces and different format, although perhaps less than a dozen faces of the work-horse variety do 80 per cent of the work. The leading type faces are Garamond Bold and Light Bookman, Century and Schoolbook. Bodoni in all weights, sans serifs in all, weights, Caslon, Stymie in its variations, all with their respective italics."

He stated good typography is an acquired art. It calls for artistic taste, straight thinking, a goodly portion of imagination—and absolutely no tendency to fight the job. Form follows function—that is, give the type a chance. As you create a typographic picture, dignified or departmentalized simplicity should be the keynote. For type can whisper, shout, speak logically, or convey any nuance of meaning—in cadence or cacophony . . . . Big type does not necessarily make copy ideas any bigger . . . . Ads that have 85 to 90 per cent white background are the most legible and most pleasing.

Continuing, the speaker said: "Type prescribes its own measure and the machine operator should be given leeway of one-half to one pica in length, where possible, for good word spacing. The first seven lines will usually determine the proper measure for booklets or work that has more body copy than is usual.

"In body, or text type, do not go below 10 pt., if possible, except for captions, descriptions, specifications that are important only to those interested in technicalities. Persons of substance, as they grow older, and their eyesight fails them, will not bother to read small print—but they have the money. The younger generation will wade through the 3 pt. body copy in *Popular Mechanics* ads—but it is usually short of capital."

The speaker said he definitely was in favor of audacity in design, or intriguing trick *display* that will vitalize a caption, or help sell the product or service. Let us help sell something!"

"It's a sad commentary," said Giesey, "to have so much good equipment and yet see so many, many putrid effusions here and there. They seem studiedly rotten. Therefore, we have to furnish a clarifying, or delousing service in cases where no layout man has been employed, and where we have to reset one of those 'weird mosaics of many units'."

The speaker presented what he called a prayerful petition to typefounders, as well as manufacturers of line-casting machines. He admitted that perhaps he didn't know all the problems encountered by them, but fonts could be much improved, with the result that the typographer's life would be more pleasant. In order, the questions composing the petition are as follows:

"Why optional characters at the expense of making standard characters short in the font? They should be fonted separately for the guy who gilds the lily.

"Why not a complete set of punctuation marks with uniform design and weight in single and double quotes, parentheses, dashes, small dollar ($) and

A Small Representation of the more than 700 Craftsmen are Pictured in left to right order as they Gathered in San Francisco for the 30th Annual Convention.

1.—Harry S. Adams, jr., Pacific Coast District Manager, Lanston Monotype Machine Co., San Francisco; Henry A. Schneider, Secretary, Charles Francis Press, New York, N. Y.

2.—Wm. M. Kemp, Printing Machinery Dealer, San Francisco; Robert Royden Greer, Printing Engineer, Los Angeles; Augustus E. Giegengack, General Manager, National Graphic Arts Expositions, Inc.

3.—Detroit Group of Craftsmen—John Fisher, Mike Conner, Ted Annen, Robert Knox, C. E. Bancroft, Glen Peterson (President Detroit Club), J. W. Salmon and Arthur W. Graichen.

4.—Oscar Pedersen, Convention General Chairman; Mrs. Ray Wright, Honolulu, Hawaiian Islands; Paul Gallagher, Printer for the State of California.

5.—Ed Aitken, Superintendent, Bryant Press, Toronto, Can.; Tom Paterson, Asst. Superintendent, Bertco Press, Los Angeles.

6.—Jack T. Elliott, Elliott Printing Co., North Hollywood, Calif.; Edwin Backolz, Composing Room Foreman, Western Printing and Litho Co., Racine, Wis.; Fielding Utz, Milwaukee Printers Roller Co., Milwaukee, Wis.

7.—Basil Parsons, Secretary, Thomson-National Press Co.; Henry Bettman, San Francisco; Fred Travelena, Membership Chairman, New York Craftsmen's Club and Representative, Charles Eneu Johnson Co.

8.—Joseph Skach, Chicago; Ray Wright, Honolulu; Edward H. Christensen, Chicago; Guy Bradley, Past Intl. President, Indianapolis Club; Amadeo R. Tommasini, San Francisco who was appointed new Public Relations Director by Intl. President Russell J. Hogan; Elmer Hostetler, Los Angeles Manager, Intertype Corporation.

9.—Henry G. Hanson, Hanson Plant, Brockton, Mass.; Elmer Leach, Proprietor, Leach Printing Co., Des Moines, Ia.; C. Harold Lauck, Journalism Laboratory Press, Washington and Lee University, Lexington, Va.; Robert Royden Greer, Printing Engineer, Los Angeles, Calif.

10.—Glenn G. Peterson, President, Detroit Club; Edward T. Samuel, Intl. Treasurer, Cleveland; Bertram Wolff, President, Book Manufacturers' Institute, New York; Perry R. Long, First Intl. President, Los Angeles.

11.—Mr. and Mrs. John Frisbie, Toledo (O.) Club; Fred Baillie, Intl. First Vice President, Ottawa, Can.; Mrs. Al Friedrich and Al himself, Indianapolis Club.

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cents (c) signs, and at least the popular fractions in all sizes?

"Why the big gap between 36 pt. and 48 pt. in most families? And the lack of 16 pt. in many standard faces? Also lack of 9 pt. and 11 pt., when there is a big jump in the regular sizes? These would not have to be cast on their respective body size, in the size below 18 pt. The extra point would give the automatic spacing needed.

"Why not recessed characters in fonts? Especially in the larger sizes. Recessing usually has to be done by the typographer, which is not economical, nor as accurate a method.

"Why not apostrophes cast with the lower case s—especially in scripts, cursives, and close-fitting characters? These are available in very limited cases."

He also suggested more figures 1, 5 and 0 in fonts.

Composing Room Operations

Edward H. Christensen, Production Manager of Central Typesetting & Electrotyping Co., Chicago, addressed the Typographic Clinic upon *Composing Room Operations*. Mr. Christensen's address was marked by comment upon rising composing room costs, sharp competition, plant layout, analyzing operations, planned production, schedules, production helps, work simplification, job interest and work satisfaction by employees. That part of his address devoted to treatment of the human element in the plant is pertinent to successful composing room operation under today's conditions.

Mr. Christensen asserted we are entering upon a period of intense competition in the composing room. In addition, we are going to be faced with the competition of new processes of producing a type proof—in some cases, irrespective of quality.

The obvious answer to these challenges is to find ways and means of lowering unit costs. Lowering wages should be the last recourse in our thoughts. Speed-up of the individual worker is just as impossible. More production will have to come as a result of better work methods and from the elimination of unnecessary operations.

In recent years, printing executives have paid more attention to work layout than ever before. High wage rates have made it necessary to keep compositors on live production instead of using them as errand boys to carry proofs, type pages, and spacing material back and forth in the shop. Sources of supply of spacing material must be moved near the compositor so he can work without interruption. To meet this situation, Mr. Christensen made a number of suggestions.

Mr. Christensen discussed starting the plant rearrangement program by using graph paper to lay out the composing room floor area scaled down to ¼ in. per ft. The first step after outlining the composing room floor area is to trace with a red pencil the flow of a job through the composing room. Then make a second map of the composing room with its posts and partitions. Next, cut templets to scale to show the floor space taken by each machine or cabinet.

The principal thing to watch in making a composing room equipment layout is not to cut down the aisles too much. A narrow aisle is a bottleneck and a hindrance to good production. In working out the efficiency of the workflow, you simply list every operation in the room from the time the man gets the copy until the page is locked for the foundry and proofed. List the average time consumed by every operation and the feet traveled in transporting the job between operations.

Some time ago, the speaker stated, it was discovered that there were 11 different operations involved in the way the work was being done; there were five transportations, and the man traveled 1090 ft. to make up the page and lock it up. We developed a new method in which only four operations and two transportations were required and in which the man traveled only 130 ft. The rest of the traveling and all the proofing and racking of pages was done by a proof boy at a considerable saving in time and money.

"I believe," said the speaker, "that every job brought into the large or small composing room should be planned by a layout specialist before being passed to the hand compositor—that is, an accurate layout should be made before a line of type is set for that job.

"When I speak of layouts, I do not refer to those lovely art creations that come out of advertising agencies. I mean an accurate blue print of the page that shows the exact stock size, the size of the type page, location of the display lines and the exact size of the copy block. I do not need any fancy lettering on this layout. If the layout man is a practical worker with type, he can merely draw two parallel lines and write 36 pt. Caslon Old Style Caps between them but I want to know that 36 pt. caps will go in that space. The position of the copy block can be indicated by a rectangular block, but here again the copy should be cast up so that the type will not run 1 in. longer than the planned spot."

Instead of trying to make layout men out of all compositors, pick out one or two and lavish all the training and counsel on them. See that they are encouraged to study and to join organizations which will give them an understanding of all the traditions of printing and will show them modern trends as well. Then let these fellows make the blue prints for the rest of the compositors. Let these layout men check the proofs for spacing and those little improvements which raise a piece of printing out of the ordinary class. How much easier it is to pass on the customer's wishes to one layout man than to three or four individual compositors who will interpret those instructions in three or four different ways.

The speaker urged that layout men be taught the use of a slide rule for copycasting. The use of a slide rule will enable the layout man to calculate his sizes instantly and accurately and will allow him to use his time to create better printing and he will not waste his time doing fifth grade arithmetic.

Bindery Clinic

SECOND Intl. Vice President Fred C. Baillie opened the Bindery Clinic by introducing Arthur S. Colton of C. O. Owen & Co., Chicago bindery firm. He stated Mr. Colton would serve as chairman of the clinic.

Among the distinguished people attending the Bindery Clinic was Bertram Wolff, President of H. Wolff Book Mfg. Co., Inc., New York. Mr. Wolff is President of the Book Manufacturers' Institute, Vice President of Edition Bookbinders, of New York, and Vice President of the American Institute of Graphic Arts.

Mr. Colton introduced Rudolph Ernst, Bindery Foreman of the Metropolitan Printing Co., Portland, Ore. Mr. Ernst's subject was *Recent Developments in Bindery Operations*. He reviewed briefly the history of some of the technological developments from the time of the arrival of John Sanders, a bookbinder in Boston in 1636, who established the first commercial bindery in America. The binding industry, over the years had its problems with craftsmen when new machines were introduced to supplant hand binding.

Mr. Ernst reported that a leading thread manufacturer recently has introduced a thread for book sewing which is made up of a multiple number of filaments or fibers without twisting. The thread is made up of an untwisted bundle of fibers which have been so welded together that they form a thread of one cord with all the properties of the original fiber from which it is made. Since the thread has no twist and is without spirals and ridges of ordinary twisted thread, it will not kink, snarl, split or ravel.

He mentioned a number of new developments by equipment and supplies manufacturers. One of these is the Gatherite Collator developed in the plant of the Craftsmen's Press, Seattle, Wash. It is an electronically controlled machine for use in snap-out work. The prototype of the production model is now in final tests at the San Francisco factory of the Pacific Gear & Tool Co. In all probability, production machines will be ready for the market by the first of the year. The first model will handle sheets from 8½ in. by 11 in. to 14 in. by 20 in. in five separate bins, each having a capacity of 4000 sheets. Each sheet is delivered in sequence to the receiving bin at from 6000 to 15,000 sheets per hr. Carbon interleaved forms from the production of a single web press have been gathered at an average speed of 8000 per hr., two up with the carbon pasted in the form. Depending upon the nature of the work, the machine will gather paper or forms with carbon attached at from three to five times the fastest hand gathering.

He mentioned that the Dexter Folder Co. has announced a machine for notch-

ing signatures prior to the application of adhesive for use by concerns using the binding method developed by the World Pub. Co. of Cleveland.

Roll Leaf Stamping, Embossing and Die Cutting Clinic

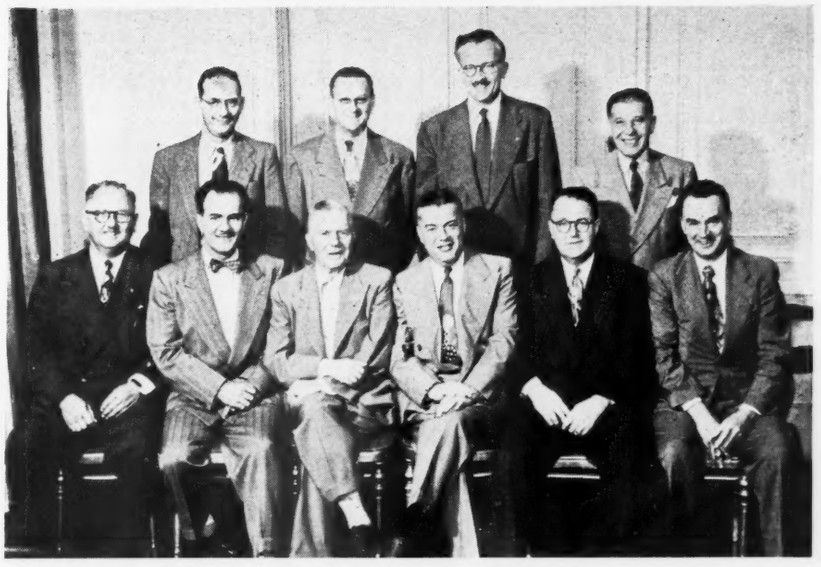
AT the Roll Leaf Stamping, Embossing and Die Cutting Clinic, Educational and Research Commission Chairman Thomas. P. Mahoney presided. He introduced Basil M. Parsons, Secretary and Sales Manager of the Thomson-National Press Co., who delivered a highly informative address. Mr. Parsons' address was devoted entirely to roll leaf stamping, embossing and die cutting on platen presses. Early in his address he stated "The printer who persists in looking for the long runs of straight commercial work which is highly competitive, and who overlooks the possibilities of specialties which the platen, as a rule, can still produce better than any other type of machine, is often passing up golden opportunities for profit and for taking up the slack during a dry spell.

In this class of work can be included diary and menu covers, heavy book covers, candy wrappers, Christmas cards, booklet covers, pass book covers and a variety of other work.

In discussing the work which can be done on Chandler & Price, Kluge and Thompson presses, he stressed that judgment must be used with regard to the loads to be placed on any particular size, make or style of platen press, particularly when embossing and die-cutting is involved. The manufacturer should be consulted as to whether certain types of work will take a particular type of job. "It is always much more profitable to run one or two up and save the machine, rather than try to run four or six up and smash the press." He advised sending a sample of a proposed job to the manufacturer, telling him what size and style press you have and inquire if the proposed sample job is OK for the press.

In roll leaf stamping work, three elements are essential: (1) A good platen press, (2) A single or three-draw roll leaf attachment, and (3) An electric die heater, since heat is positively essential when stamping leaf of all colors. It is the heat that assists in removing the pigment from the carrier, under pressure. The pigment is laid on a carrier strip of glassine paper or cellophane.

A hard, removable ⅛ in. steel plate on the face of the platen is also desirable but not always necessary if you do not combine a die-cutting operation with a printing or embossing operation. The most versatile platen press for specialty work is one that will print with regular inks, is equipped with a roll leaf attachment, an electric die heater, and a removable hard steel plate for die-cutting.



New Officers to Head International Association of Printing House Craftsmen—(Bottom row, left to right), Third Vice President, Gordon J. Holmquist, Cole-Holmquist Press, Los Angeles; Second Vice President, J. Homer Winkler, Technical Advisor, Battelle Memorial Institute, Columbus, Ohio; First Vice President, Fred C. Baillie, Supt., Canadian Bank Note Co., Ottawa, Can.; President, Russell J. Hogan, Plant Manager, Blanchard Press, New York; International Past President, Gradie Oakes, President and General Manager, Process Color Plate Co., Chicago; Treasurer, Edward T. Samuel, President, Samuel & Walker Printers, Cleveland. (Top row, left to right), Publications Chairman, Russell L. Olander, The Olander Press, Glen Ellyn, Ill.; Executive Secretary, Pearl E. Oldt; Technical Commission Chairman, Tom Mahoney, General Manager, American Color Process Co., Cleveland; Public Relations Director, Amadeo R. Tommasini, Designer and Production Manager, University of California Press, Berkeley, Calif.

He advised that with the smaller single-draw unit, leaf can only be stamped in one particular place on the sheet. With a three-draw unit, it is possible to stamp with gold, silver or other colored leaf, three different designs in three different places. Each of these "draws" is adjustable to stamp or emboss exactly where the user desires on a single sheet and at a single impression. He also pointed out other characteristics of the roll leaf attachment.

"It is surprising," said Mr. Parsons, "how many colors may be had for roll leaf work. Gold and silver, of course, are undoubtedly the most popular, but there are also red, blue, green, yellow and even white. There are actually 28 colors obtainable."

The speaker said "Some boxmakers use the roll leaf process for fancy folding set-up boxes. Plastic converters use it for stamping plastic articles such as tooth brush handles, hair brushes and many other plastic articles. Wood, fibre, cloth, hard rubber and other resisting materials are easily stamped with roll leaf in various colors."

Mr. Parsons then considered dies and makeready as connected with roll leaf stamping or embossing. No matter whether it is embossing or die-cutting, some of the principles of printing makeready are still involved. Said he: "We can stamp into paper or cardboard simply by adjusting the platen impression to give the depth we want to obtain. But when embossing, we force the paper or cardboard to produce a raised design. Different materials are used for making ready the embossing counter on the platen press, among which newsboard or compound are most commonly used. A plastic counter is also in use."

Mr. Parsons explained that some of the old-time embossing experts have their little tricks which they often guard jealously, forgetting the Share Your Knowledge slogan.

Parsons explained that embossing is not performed wholly by pressure, but is a combination of pressure and heat. The heat acts as a shaping medium. Countless printing plants are using electric die heaters for hot embossing on platen presses and printed pieces are being dressed up with this second impression. They are easily put in or taken from the press. They are designed for the use of ¼ in. brass or steel engraved dies, the dies being fastened and registered on a drilled surface plate by bunter-post registering screws.

Earl Boner, Cleveland, during the question and answer period, wanted to know whether or not there is some way of estimating the pressure necessary when embossing on a given press. Parsons suggested that the user get in touch with the manufacturer, send him the number of inches of contact, tell how many up and a sample of the stock. The manufacturer also likes to see the embossed design, and know the make of press.

Bob Rickett of Portland, Ore., said he had had trouble with a job on which the stock had been cut so that the grain ran two ways in the proportion of ⅓ and ⅔. In the stock which ran in one direction, the card dropped out of the sheet. Parsons said this appeared to be a nicking problem. He stated that the grain direction in the stock should be kept one

way. If cut across the grain the card will drop out. Don't mix grain directions.

Craftsman Bauman of Washington, D.C., wondered why, in a die-cutting job, 4 pts. thick cellulose acetate sheets would shatter. Craftsman C. E. Bancroft, Detroit, said the only way this trouble could be eliminated is to bring the acetate sheets to at least room temperature. There should be moisture in the air and the sheets should not have been kept in stock for too long a period of time. Chairman Parsons explained that he has seen heavy sheets of cellulose acetate dipped in boiling water. If the plastic is heated, be sure no moisture problem is involved. Acetate sheets will stretch as much as ⅛ in. in 18 in., and after cooling, will return to normal measurement. One Chicago Craftsman stated a grinding tool is now available. The wheel operating at 25 thousand r.p.m. just a few thousandths thick will cut small nicks in the die that are not noticeable in the finished work. This prevents separation of the card from the sheet prematurely. Carl Dyer of St. Louis, stated he had obtained good results so as to lengthen the impression dwell by slowing down the speed of the press.

A Honolulu Craftsman wanted to know if there was a substitute metal for brass or steel from which the dies are made. He explained that obtaining die stock or dies from coast suppliers is a rather slow undertaking. Two suggestions were made. Use the reverse side of an old die if the nature of the design permits, or use heavily nickeled electrotypes. Another alternative would be to supply die stock ahead of time especially since the material has been hard to secure.

Letterpress Printing Plates Clinic

THE Letterpress Printing Plates Clinic convened Tuesday morning, September 6. International Vice President J. Homer Winkler presided. The first speaker was California State Printer Paul E. Gallagher, Printing Div., Dept. of Finance, Sacramento. His discussion was from the standpoint of the user of magnesium printing plates. He enumerated the claims made for magnesium metal when employed in printing platemaking: (1) Light weight;(2) Magnesium metal has the characteristic of becoming tougher under repeated pressure; (3) Magnesium etches deeper without dirty bottom; (4) Saves 50 per cent etching acid; (5) Sawing, beveling, routing and tooling are carried out on present standard equipment; (6) Etching is accomplished with standard equipment; (7) Magnesium will give accurate dot formation with screens as fine as 200 line.

Mr. Gallagher pointed out that magnesium metal plates may find use in direct newspaper printing. One firm is printing telephone directories on rotary presses.

The speaker related that the Printing Division had used magnesium metal plates on a number of jobs for the State of California. One of these was a 24 page pamphlet for the California Motor Vehicle Dept. on newsprint. Another job was for a series of elementary grade arithmetic books. It was determined that the printing division could make original master engravings from the publishers' negatives, then make a set of patent base nickeltypes from these original engravings. The presswork could be produced by the letterpress method on two-color presses both on the original runs and subsequent reprint orders at a considerably lower cost than by continuing to have the work handled by another process.

"In order not to go off on the deep end," stated Mr. Gallagher, "we made a set of 32 plates in one color on the first arithmetic book upon which we ran 170 thousand impressions. On the hard paper with good makeready we found little evidence of wear. So we then followed up by having Zomag metal plates made for the balance of the first book, and three others, all having runs of a similar nature. We were pleased by the results as well as the savings in plate costs, due to elimination of the purchase of sets of duplicate printing plates. This situation is a little hard on the electrotypers, but it did add a bit to the photoengravers' business volume."

The California State Printer related that he uses a considerable number of 133 line screen halftones mounted on wood made with the thinner gauge Zomag metal in place of copper halftones previously used at a saving in cost.

Preparing the Form

George Fowler, Plant Manager of the Johnson Mat and Electrotype Co., San Francisco, followed Mr. Gallagher on the program. His address was entitled *Duplicate Printing Platemaking*. He discussed the making of electrotypes, rubber and plastic printing plates. In common with many other platemakers, he stressed the desirability of proper form preparation. The form should be locked up with type high bearers at least ½ in. wide and spaced not less than 12 pts. from the work. If the form is machine-set, high spacing is ideal. Hand-set forms spaced with quads should, if possible, have quads all of the same height for easier form fill-up. He criticized the practice of printers undercutting a cut block to the point where the face of the cut over the undercut has no strength left in the base to withstand molding pressure. When ordering engravings, it is well to tell the engraver that the plate is to be used as a pattern for duplicate plates and to stress the idea that there is to be no undercutting. This factor is doubly important when ordering duplicate plates in plastic or rubber, as well as electrotype molding in Vinylite.

Question and Answer Period

In the question and answer period following the addresses of Messrs. Gallagher and Fowler, some interesting answers were given.

Someone asked what causes pinholes or pinpoints in magnesium plates. The answer is that where water exists in cold top enamel the water causes tiny bubbles because magnesium metal has an affinity for water. It is up to the engravers who must "lick" the problem. The audience was advised to analyze the water supply and if necessary use filtered water.

Any soldering of Zomag metal plates should be done with a brand-new and clean soldering iron of nearly white-hot temperature. No flux is used. The solder is obtainable from Dow Chemical Co.

Plates which are to be stored should be cleaned thoroughly and covered with a protective coating to prevent corrosion in storage. The coating is obtainable from Dow Chemical Co. Another method is to cover the plate with vaseline in case there is humidity or dampness in the storage area, afterwards wrapping the plate with waxed paper. Rustban 343 (Penola Corporation, Pittsburgh) or Stoddard Solvent can be brushed on before storage. The audience was informed that magnesium metal plates must be protected during the storage period to avoid corrosion.

It was brought out during the discussion period that there is less chance of dimensional change in platemaking operations than there is with zinc or copper.

Plate surfaces may be cleaned with chromic acid.

Cooling plates on a slab will create buckles in a large plate. It was recommended that plates be cooled by an even flow of water to avoid buckling.

Xerography and Pressroom Clinic

ON Wednesday morning, September 7, the Xerography and Pressroom Clinic went into session. Russell J. Hogan, now International President, presided. The lead-off speaker was J. Homer Winkler, International Vice President and Technical Advisor to Battelle Memorial Institute, Columbus, Ohio.

Mr. Winkler presented a moving picture illustrative of the process and explained the new electronic process under the title *Xerography and Xeroprinting* in an excellent manner. Full description of the process was published in the November 1948 issue of *Printing Equipment Engineer*. Even though many in the audience had heard the process discussed previously by Mr. Winkler and associates from Battelle in various parts of the country, they were glad for the opportunity of listening to the explanation of the principles again.

The next speaker was Spike Ryan, Pressroom Foreman, Letterpress Dept., H. S. Crocker Co., San Bruno, Calif. His topic was *General Pressroom Procedure*.

In this plant, the pre-registerscope is used to position forms within one lead previous to going to press.

Color sequence in the letterpress department of the Crocker plant is yellow, black, red and blue, in that order. Four-color process printing is being done with gloss inks and synthetic inking rollers are used on a Miehle 46 Unit operating at 2700 i.p.h. Large sheets are hung in the pressroom to condition them to press-room temperature and humidity before being put on the press.

Baked overlays are made with resinous powder (Gold Velvet Powder).

During the discussion period, Chairman Hogan indicated the value of color bars on color process plates when proving them. The proofs of the bars in each color provide an accurate color control both for the pressman and the inkmaker.

The first showing of a two-section illustrated educational feature entitled *The Printing Press—Past and Present*, was presented by Vice President A. E. Searle jr., of the Miller Printing Machinery Co. The first section consists of a lantern slide lecture called Press Tintypes devoted to printing presses of the past. The lecture is based on a paper by Gordon Montgomery, President of the Miller Printing Machinery Co. entitled *Printing Presses of the Nineteenth Century*. The slides were made from illustrations from long out-of-print books. With the running commentary they are intended to show the progress that has been made by the printing machinery industry in the last few years.

The second section of the feature is entitled *Another Man's Business*. It is a sound motion picture in full color. First is shown a living model who is photographed. Four-color process plates are made from the photograph and run on a Miller 21 in. by 28 in. TW Two-Color letterpress press. The theme of the picture is to take you through the Miller factory to see how carefully and meticulously Miller presses are manufactured.

The film is available to Graphic Arts groups and may be booked for your organization by requesting the Advertising Dept., Miller Printing Machinery Co., 1131 Reedsdale St., Pittsburgh 12, Pa.

Lithography and Gravure Clinic

IN the absence of President Gradie Oakes, Addis Dempsey of Boston, presided at the Lithography and Gravure Clinic. Chairman Dempsey introduced Kenneth R. Burchard, Offset and Photo-mechanical Sales, American Type Founders Sales Corp., who discussed *The New Approach to Printing Reproduction*. The speaker, by means of charts and an elementary but concise explanation demonstrated the working operation of the camera, including an explanation of the functions of the lens, focal length, focusing device, diaphragm controls, etc. He explained the differences between albumin and deep etch plates. He took his audience through the ten steps utilized in making a plate. During his closing remarks, the speaker stated that dry offset when fully developed should be "duck soup" for printers. No doubt this observation was prompted because of the removal of the dampening mechanism from the press and the production of a relief plate more nearly like a photoengraving.

A. B. Woodruff, Engineer in Charge of Offset Press Development, Harris-Seybold Co., delivered a paper entitled *A Quick Look at Lithography—Present and Future*. He enumerated some of the new process developments which have advanced offset-lithography. He also listed the research projects under way in Harris' Research and Chemical Laboratory, the printing process laboratory and the engineering experimental laboratory.

Plate for Big and Little Fellow

He discussed the improvements which have been made in the durability of offset plates. He stated that the bi-and tri-metallic plates should more than compensate for their added cost if the plates live up to their advance notices in the way of long life and trouble-free operation. Some figures as to productivity are as follows: Over 600 thousand impressions on maps; 500 thousand on folding boxes, and over 500 thousand on labels.

"Of course," said Mr. Woodruff, "it goes without saying that only the producer of long runs and enormous volume would be interested in tri-metallic plates, whether printed on sheet-fed or web-fed offset presses." Up to the moment he doesn't think the cost of the plate can be reduced for the little fellow.

He queried: "How about the little fellow? For we must not forget that there are a lot more of him than of the big fellows. For him, the so-called throw-away plate is getting a lot of study and attention. Plastic plates—plastic on a paper base, and plastic on a sheet-metal base—are all in varying stages of research and development.

Mr. Woodruff stated there are still plenty of single-color presses being built and sold, but the proportion of singles to multi-colors is decreasing with each passing year. In one instance, the speaker related, a successful lithographer was asked how small a job could be run economically on his 42x58 four-color press. His reply was: "5000 sheets." He said that at first gulp that statement sounds a bit silly, but a four-color job run on a single-color press has to be made ready four times, just the same as on a four-color press. The lithographer making the statement informed Mr. Woodruff that fitting the colors is much simpler on the four-color press.

Troublesome Factors

He discussed the factors which affect the ease with which a press can handle paper presumably from the standpoint both of the user and the engineer. It is extremely difficult for the same feeder to run both heavy boards and light-weight stocks. It is generally accepted that stocks of less than 0.002 in. thickness are difficult for any feeder to handle.

If cardboard is wavy or curled it is difficult to feed and the difficulty will increase in proportion to the amount of waviness or curl. The speed of the press also enters into the question of how well a given stock can be handled by the feeder. A stock which could be handled at 4000 sheets per hr. might be impossible to run if the operator attempted a speed of 6000 per hr. Stock and speed must be reconciled on any job.

"The heavily-coated papers in present demand for high grade advertising medium" said Mr. Woodruff, "are making new techniques in feeding necessary. Bear in mind that the base stock, before coatings are added, represents all the strength and stability in the finished sheet. So far as handling, feeding and register are concerned, the added poundage of the coating is a liability more than an asset. For example, when a customer sends into your plant a carload of 70 lb. coated two-side, you are getting 45 lbs. to 60 lbs. base stock with enough clay and casein added to make the finished weight. That clay and casein do not make for better feeding you may be sure. The coated stocks require the new synthetic heatset inks, which in turn require something special in blankets and composition rollers to withstand the powerful solvents needed to cut the inks."

With respect to conditions in the press-room, humidity will also influence the handling of the sheets. This is especially true of the coated stocks. The real answer to static is prevention by temperature control and air conditioning.

With respect to the static problem, Mr. Woodruff stated that in H.-S. tests, all methods tried still fail where needed most—at the feeder.

In regard to water and ink control on offset presses, the speaker stated ". . . . we still have to muddle along with the good old molleton covered roller and the water pan with its unholy solution of gum and etch and, maybe, a touch of tobacco juice. But we aren't licked yet. Sometime, somehow, the water fountain as we know it now has got to go."

"Gravure's Coming of Age"

Fulton McArthur, Sales Manager, Klingrose Gravure Div., American Type Founders Sales Corp., discussed the gravure printing process and enumerated the products which may be produced by the process. He said sheet-fed gravure has not found favor in this country simply because of the lack of control over multi-color registration. A sheet-fed gravure press is not unlike a clothes wringer and the tremendous pressures required to transfer ink to the art finished papers usually employed in sheet-fed printing, causes tail distortion which is unpredictable. He asserted that gravure's coming of age is directly related to its use and continued expansion in the specialty and commercial printing fields. He exhibited a number of examples of beautiful printing by rotogravure which were done for leading manufacturing companies in volume production, some of which were related to the packaging field.

He stated: "Gravure is not the panacea for all printing ills, yet in today's markets there will be greater need for its use."

NAPL Convention and Exhibitors

In addition to business and management problems, the National Association of Photo-Lithographers' convention program will be devoted to a number of plant technical and production problems.

One of the papers is entitled *What Justifies Adding a Third Shift?* Joseph F. Matlack, Vice Pres. in Charge of Mfg., Edward Stern & Co., Inc., is the speaker assigned to this subject.

Rex Howard, President, The Howard Co., will discuss *Color—Black and White or Specialization? Where is the Gold?*

The Flexichrome Process will be explained by Alexander Clair, Graphic Arts Div., Wastman Kodak Co.

William J. Stevens, Executive Secretary, NAPL, has prepared a paper on *Better Lithography Requires Better Copy.*

A speaker has not yet been announced for *The Web Press—Does It Fit Into Your Plant?* This should be an interesting paper.

An executive of an outstanding offset plant will discuss *What Constitutes Good Shop Supervision?* Frank Myers, General Manager of Copifyer Lithograph Corp., will handle the assignment.

One afternoon session will be turned over to those who sell to the Lithographic industry. During this forum, new methods and new equipment will be explained.

An all-day session, starting on Saturday, October 22 will consist of a Technical Forum. It will be conducted by the National Association of Litho Clubs with the New York Litho Club conducting.

This year's convention will be held at Hotel Statler, New York, N. Y., Wednesday through Saturday, October 19 to 22 inclusive.

Exhibitors

During the latter part of August, the list of exhibiting companies for the 1949 convention were announced by Executive Secretary William Stevens as follows:

Air-Perme-Ator Mfg. Co.
American Type Founders
Ansco Div., General Aniline & Film Corp.
Babcock Printing Press Corp.
Baum, Russell Ernest, Inc.
Bingham's, Sam'l, Son Mfg. Co.
Bourges, Inc.
Bridgeport Engravers Supply Co.
Brown, W. A., Mfg. Co.
Chemco Photoproducts Co., Inc.
Consolidated Photo-Engravers Equipment Co.
Craftsman Line-Up Table Corp.
Coxhead, Ralph C., Corp.
DuPont, E. I. de Nemours & Co.
Eastern Graphic Arts Supply Co.
Eastman Kodak Co.
Electronic Mechanical Products Co.
Fuchs & Lang-General Printing Ink Div., Sun Chemical Corp.
Gaebel, Arthur H., Inc.
Gaevert Co. of America
Gegenheimer, William
Gelb, Jos., & Company
Godfrey Roller Co.
Harris-Seybold Co.
Hunt, Philip A., Co.
Ideal Roller & Mfg. Co., Inc.
International Printing Ink Div., Interchemical Corp.
Knapp Machine Corp.
Kohl & Madden Printing Ink Co., Inc.
Lawson, E. P., Co., Inc.
Litho Chemical & Supply Co.
Macbeth Arc Lamp Co.
Moreland Corporation, The
Murphy, George, Inc.
Phillips & Jacobs
Pitman, Harold M., Co.
Printing Machinery Div., Electric Boat Co.
Roberts & Porter, Inc.
Robertson, R. R., Co.
Rutherford Machinery Div., Sun Chemical Corp.
Ryan, E. G. & Co.
Siebold, J. H. & G. B., Inc.
Sinclair & Valentine Co.
Strong Electric Corp.
Vandercook & Sons, Inc.
Zarkin Machine Co., Inc.

ATF Pacific Office

Edward G. Williams, President of American Type Founders Sales Corp., has announced the establishment of a Pacific district office to handle the sale of all web-fed printing equipment manufactured by the company. The office is located at 360 Golden Gate Ave., San Francisco 2, Calif. Appointed Manager of the new sales district is A. P. Monroe jr. Mr. Monroe has been in the ATF production, engineering and sales divisions. He was most recently with the ATF web-fed sales division in New York and Chicago. He is a graduate of Princeton University.

A. P. Monroe, jr., appointed Manager of ATF's Pacific web-fed sales office.

Sales Office Established

The Champion Paper and Fibre Co. has announced the establishment of a Southwestern sales office in Dallas, Texas. Announced also is the appointment of Sterling Brown as Manager of the Dallas office. Mr. Brown has 18 years of experience in the paper industry and takes up his new duties after eight years of service in Champion's Chicago and St. Louis sales offices. Address of the new office is Mercantile Securities Bldg., Dallas 1, Texas.

LETTERS
TO THE EDITOR

"Nox-" and "Nixography"

Dear Editor: May I congratulate you on the coverage of the ANPA Mechanical Conference in your July issue? It is a very informative presentation to those who could not be present.

To keep the records clear, and so that your readers may not misinterpret the formula I gave on newspaper halftone printing, I'd like to point out that I concluded the first part of my talk with the statement "The ideal newspaper halftone is a reproduction of a photograph which is sparkling in appearance, has small areas of solid black and used only for accents, has highlights as light as possible and yet holds all middletones." Your reporter inadvertently abridged my "punch lines" and it is possible that readers may find it unclear.

While on the subject of my address, I'd like to make it known that my demonstration of "Nixography" was not meant as a burlesque of any other processes, as the news item seems to indicate. I used an old magical effect invented by a photographer-magician, which is patented under the name of "Noxography." I selected this particular experiment as an opening to the second part of my address because I had to begin with a photograph which I could produce instantly and magically. "Noxography" was used in magical performances long before the principle of Xerography became known, and I would have used it on the night in question even if Xerography was yet unborn. I did take liberties in calling the process "NIX-ography" because at one demonstration, I could not afterward convince my audience that I was spoofing. With the prefix "NIX" there seems to be no problem.

In fairness to the magnesium industry, I also wish to emphasize that the powder I use is a harmless ingredient used by magicians for flash purposes and is not magnesium.

Ben Dalgin
Director of Art and Reproduction
New York *Times*

Manual of Stereotyping

By Joseph D. Goggin

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The essential factors of stereotyping — equipment, materials, and manipulation— are discussed in this 256 page manual by a man who has had extensive practical experience and study in the process. The all-important preparation of the form from which the mold is to be made and the molding and casting procedures are thoroughly explained from the standpoint of the requirements of the process. A Glossary and Encyclopedia gives definitions of terms used by stereotypers.

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PRINTING EQUIPMENT Engineer
1276 W. 3rd St. Cleveland 13, O.

Discussion *about direct pressure mat molding—Elements entering into control of equipment to obtain exact molded result in the mat — Further study needed*

By JOSEPH D. GOGGIN*

**President, Newspaper Publishers Supply Co., Chicago.*

THE variables present in the art of stereotyping are well known. Of fairly recent date, printing executives together with the equipment and supplies manufacturers have been giving a great deal of thought to the control of the variables which exist throughout the process of molding and casting stereotype plates.

The writer has studied the subject of molding over a long period of time and is setting down some ideas and opinions with respect to molding by roller and by direct pressure. These ideas have been arrived at with the cooperation of a number of prominent stereotype executives and engineers.

Frankly, these ideas are not presented altogether as scientific fact. A lot of further exploratory work must be devoted to them before they can be accepted as such.

To lead off this discussion, four statements are made. These are as follows:

1—Direct pressure molding methods can be regulated to eliminate friction at the printing faces of the stereotype mat and type form. With the roller molding method, friction is a common cause of reducing the fidelity of impression—hence, the printed result; also it is a factor of damage to type faces.

2—Direct pressure molding methods can be anticipated to eliminate the imposed conditions of area and direction of pressure, stretch, flow, slip, time, creep, spread and other compensating considerations of the roller molding method which requires at least two or more molding blankets. Molding blanket combinations used in roller molding reach ¾ in. thickness and are rarely less than ⅜ in. thick to obtain the non-printing level of the impression. When it is considered that very few newspaper publications will use backing felt in excess of 0.050 in. to support the space levels (non-printing areas) usually 0.035 in. or less, and are using approx. a ½ in. thick cushion to obtain this depth, it will be easier to understand the disagreement among stereotypers as to what constitutes the "proper" molding cushion. Incidentally, in view of the imposed considerations (flow, slip, creep, etc., as mentioned above) the combinations are suspected of changing from day to day, if not from type form to type form.

3—Direct pressure molding methods can be anticipated to eliminate pressure variations at the printing line in molding stereotype mats. These variations are presumed to vary from 800 lbs. to 8000 lbs. per sq. in. pressure. Yet it is known and generally accepted that failure to reach the imprint capacity of the stereotype mat may result in loss. Conversely, to exceed the imprint capacity of the stereotype mat may readily cause spread of the images and distortion in the printed result.

4—Direct pressure molding methods can be anticipated so as to eliminate the necessity for raising and/or lowering the levels of the form elements (such as halftone cuts and low rules) as employed in roller pressure molding, for obtaining a uniform printing line in the impression of the stereotype mat.

There are other major advantages for direct pressure molding methods over the roller molding methods, and a larger number of minor advantages for the direct pressure method. Prominent among the minor advantages for direct pressure is that of speed.

Since it is probable that some of the contentions made here are not completely understood, it is reasonable to assume that some disagreement exists.

Newspaper direct pressure molding methods are relatively new in the field of stereotype mat molding in the United States. In Europe the majority of stereotype mat molding is done via direct pressure molding. Similarly, the direct

Automatic Justifying Typewriter Eliminates Second Manual Typing — Commercial Controls Corp. has announced development of an automatic justifying typewriter. It is called the Justowriter. The equipment consists of two units. The first machine (called the Trial Copy Machine) shown at left in the accompanying illustration, is an electrically powered typewriter-like machine upon which the typist types the lines within the prescribed limit as to length or width but in unjustified form with respect to the right-hand margin. This first unit also punches a paper tape similar to that employed in Teletypesetter operation. The matter which is typed upon paper in the regular manner is printed in proportional spacing letters. At the end of each line the typist presses a carriage return key which records in the paper tape the justifying information needed for the particular line. The code holes each representing a letter or character are punched into the paper tape simultaneously with the typing of each letter upon the sheet of paper.

The second machine, called the Automatic Justifying Copy Machine is shown at right in the accompanying illustration. It is the one upon which the final copy in justified form is produced. When any convenient length of tape has been perforated on the trial copy machine it may be inserted in the Automatic Justifying Copy Machine. This machine will automatically type and justify the lines without attention by the typist. It is claimed that over 800 lines of newspaper straight-matter copy are automatically retyped and justified in 1 hour.

Corrections in the justifying copy may be made by pasting over letters or lines with corrected material. Spacing is said to be entirely between words and not between the letters. The spacing part of lines may be controlled by a ratchet mechanism. If no photographic plate reproduction of typed matter in reduced form is required, the automatic typing may be done directly on an aluminum or paper offset plate or on any duplicating master. Each machine is mounted individually upon a desk-like cabinet as shown in the illustration above.

It has been announced by Commercial Controls Corp. that the Justowriter will be on display at Hotel Statler, Thursday through Saturday, October 13, 14 and 15, in connection with the ITCA convention.

pressure method has been in use for many years among commercial and magazine stereotyping plants and a few newspaper publications. About 95% of this performance is believed to have been done with baked stereotype mats.

It is believed that direct pressure methods for cold molding stereotype mats is in its infancy. As in the case of the cold process for stereotype mat molding, it has been left to the stereotypers to solve the problems. This is as it should be. However, it is also known that the manufacturers of direct pressure molding equipment are willing, even anxious, to cooperate with stereotypers with respect to problems in direct pressure molding applications.

At the present time, but one of the major advantages for direct pressure molding methods, *i.e.* elimination of friction at the printing line, appears to be available to the average user of direct pressure molding equipment.

When the potential for direct pressure molding has been more fully explored, it is highly probable that all of the existing concepts of molding cushions will be discarded for a thin single blanket (obtainable in dry goods and department stores) which will be secured to the upper platen of the press. This blanket will provide for a predetermined space depth of 0.050 in., 0.060 in. or 0.070 in. as desired through the elastic limits of the blanket.

When the elastic limit of this blanket is reached at the predetermined level, a total resistance occurs which will be comparable with the steel plate itself. Thus, the spaces of the mat are expected to be uniformly at one level and are reached with almost no force and more important, in advance of the pressure application at the printing line. This accomplishment may be anticipated to give the stereotypers true control for reaching the imprint capacity of the mat without excesses. It should be remembered that with existing molding cushions it is believed attempts are made to obtain spaces and printing levels simultaneously in the mat.

With respect to the use of the thin blanket with elastic limits, such a blanket could be provided readily. Unfortunately, several conditions will be required for its successful use. We are not yet ready to "rest" steel with molding pressure forces against the printing faces contained in the type forms.

First, it will be necessary to determine accurately where the level of pressure rest occurs, now believed to be at 0.918 in. The pressure rest is the line of maximum pressure forces from above and below. Obviously, when the forces of molding pressure are permitted to continue after the printing level is fully reached, hazard to type faces is present. This is suspected whenever the chase frame level is lower than the level of the pressure rest. Conversely, whenever the level of the chase frame is higher than the pressure rest, interferences with the pressure requirements for obtaining the impression in the mat can be present.

The successful use of the proposed elastic limit blanket not only requires a positive line for the pressure rest to occur simultaneously on both chase frame and printing surfaces of the type form, but imposes uniformly the same surface resistance of the chase frame all on four sides. Presently, the area of the stereotype chase frames are very uneven and are not suitable for direct pressure operation. The wedge side of the frame of existing stereotype chases will set up a much greater resistance to pressure than the average type form itself. Chase frame resistance, evenly distributed on all sides will assure the proper protection of the printing faces in the type form, if the chase level is uniform and at the same level with the type under pressure. Since the average stereotype chase frame contains approx. 275 sq. in., it may be considered that the frame offers 700% greater surface resistance than is required. The areas of the chase outside of the trim lines (with the exception of ⅛ in. *outside* the trim lines) could be tapered off to the outside edge of the chase frame at about 0.050 in. to the inch (lower than type high) to drop this large area out of play under pressure.

Steel-to-steel effect in stereotype direct pressure mat molding is believed to be benefitted by leaving all printing levels in the type form at the same level since the elimination of the cushions as we know them now will provide a uniform printing line on the mat impression.

Second, it will be necessary to provide pressure applications within reasonable tolerances of the imprint capacity of the mat paper. This can be accomplished through a means of pressure conversion. There are the considerations of ram area, total surface resistance which is the amount of the net surfaces of the chase frame and type form and the relation of both to the pressure dial gauge of the equipment. Also, the amount of pressure required to reach the maximum imprint capacity of the mat paper at the time of use.

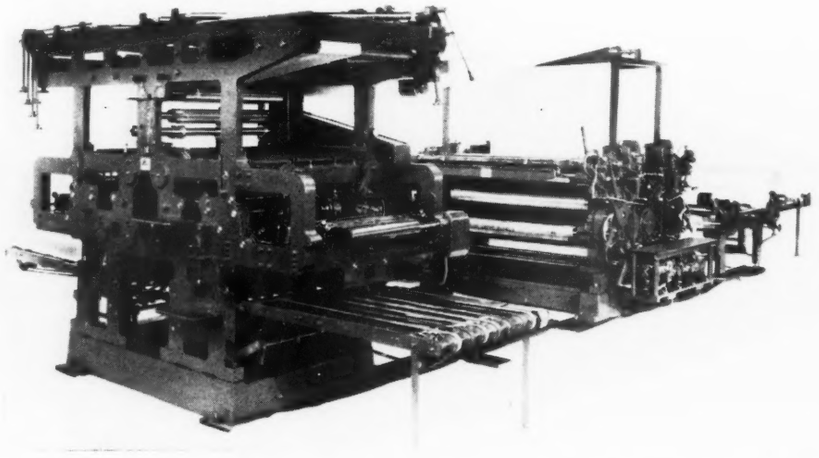
It has been suggested that a dial indicator be furnished to stereotypers which will enable them to determine quickly the proper setting of the molding pressure gauge for the particular type form to be molded. This dial indicator, turned to the classification of the form, as full, three-quarters, half or quarter page of halftones, or ads and their combinations between, can be arranged to make all the conversions required, showing the correct amount of pressure on the gauge setting.

When these provisions are available to stereotypers, it will be possible to use the thin blanket anchored to the platen the elastic limits of which will provide a predetermined space level, and in advance of pressures at the printing line.

ATF Web Fed Offset Press

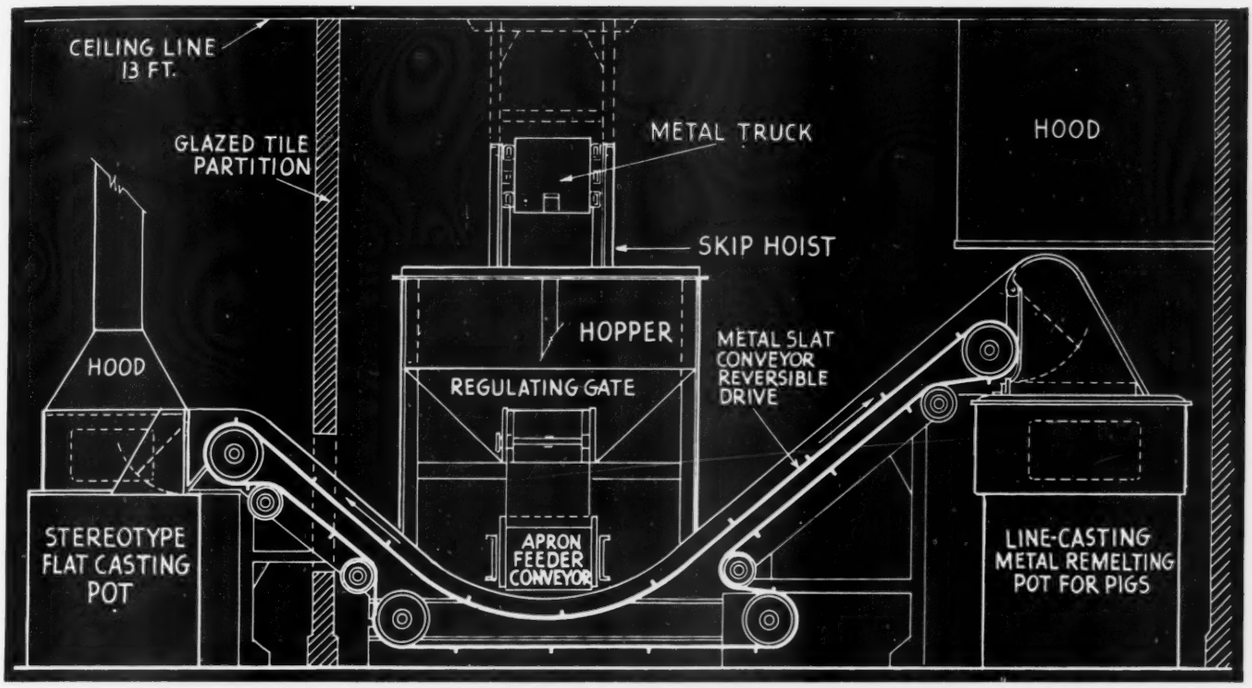
AN ATF-Webendorfer web-fed offset press, basically designed for production of telephone book signatures printed and folded in one operation, has been shipped to the Smith-Brooks Printing Co., Denver, Colo., according to an announcement by American Type Founders' Webendorfer Div. The press also will be used for production of railroad time tables, catalogs and magazines, the Smith-Brooks company said.

The press includes one mill roll stand with automatic tension control, one offset perfecting unit, and a high speed machine-built folder. The press and folder combination will deliver one 32-page or two different 16-page untrimmed signatures, 9⅝ in. by 12½ in.; or two different 32-page untrimmed signatures, 9⅝ in. by 6¼ in.; or four different 16-page untrimmed signatures, 9⅝ in. by 6¼ in.



ATF-Webendorfer web-fed offset press, basically designed for production of telephone book signatures printed and folded in one operation, has been shipped to the Smith-Brooks Printing Co., Denver, Colo., by ATF Webendorfer Div.

Designed for an operating speed of 15,000 cylinder r.p.h., this ATF-Webendorfer machine produces signatures, it is claimed, at the rate of 15,000 to 30,000 per hour of the larger page size, or 30,000 to 60,000 per hour of the smaller page size. It is a perfecting offset press, printing both sides of the web simultaneously in a blanket-to-blanket arrangement.



Side elevation diagram showing construction and operation of Runion Remelt Metal Handling Device in the plant of the Louisville (Ky.) *Courier-Journal* and *Times*. This device charges two furnaces—one in the composing room remelt department and the other in the stereotype flat-casting department. Manual exertion in getting the metal into the metal pot is eliminated. Hopper holds 15,000 lbs. of metal. The device is push-button operated so that either of the two furnaces may be charged at will.

Metal Remelting Nearly Automatic

IN THE plant of the Louisville (Ky.) *Courier-Journal* and *Times*, a Remelt Metal Handling Device is in regular operation. It was designed by H. Earle Runion, Production Engineers of that city. The device is used to charge the furnace for melting metal which is poured into Margach pig form for composing machines, and for charging the stereotype flat-casting furnace metal pot. Use of the mechanism (1) Eliminates manual effort in loading the melting pots; (2) It services two purposes—the pig melting pot supply, and the flat-casting pot supply; (3) Eliminates piles of scrap metal in one or more places on the floor; (4) The mechanical truck dumping feature eliminates necessity of having a large number of trucks scattered over the composing room floor.

It isn't every plant operating a composing room of sufficient size that can use this mechanism profitably. But where volume metal remelting is done, the Runion device is worth investigation. In the *Courier-Journal* and *Times* plant, 50 casting machines produce type matter for morning and evening newspapers. Thus it can be seen there is a considerable volume of metal remelting work.

It will be noted in Fig. 1 that the stereotype flat-casting pot and the composing room line-slug metal furnace are separated by a glazed tile partition. An opening is provided through the partition for one end of the conveyor which delivers metal to the stereotype flat-casting melting pot.

As will be seen by referring to diagram Fig. 1, the metal handling mechanism consists of a centrally located hopper, the top rim of which is 8 ft. from the floor. The hopper itself is 6 ft. by 8 ft. rectangular shape with sloping sides commencing 2 ft. from the top rim terminating 4 ft. from the floor. When full, the hopper is designed to hold 15,000 lbs. of metal.

A regulating gate is provided at the feeding side of the hopper, of sufficient strength to withstand the shearing action as the heavy apron feeder conveyor pulls the type and slugs from the bottom of the hopper and drops them into a reversible metal slat conveyor which transports a desired quantity of metal to be remelted either to the melting pot for pig casting or the flat-casting pot.

In horizontal position under the hopper outlet is located a Link Self-contained Apron Feeder Conveyor, approx. 21 in. wide by 6 ft. long between wheel centers. This conveyor is set at right angles to the inclined conveyors.

As the slugs are dropped by the apron feeder conveyor upon the reversible inclined metal slat conveyor, they are automatically dumped into the melting pot. The conveyor travels at an angle of 40 deg. and is of the continuous belt type.

Electrical controls of the push-button type have been located in both rooms so the operators can control operation of the machine at will. Thus, if the operator of the flat-casting furnace needs a new supply of metal for his metal pot, he pushes a button and the slugs are delivered mechanically into the pot. The same is true when the operator of the line-composing metal remelting pot wants to charge his furnace, except that the conveyor will run in the opposite direction as when metal is to be delivered

Printers Library

PRINTING equipment and supplies manufacturers are invited to place on their mailing list the Printers Library of Printing Institute, 2206 Chestnut St., Philadelphia 3, Pa. The school is endeavoring to serve the Graphic Arts industry of Philadelphia by securing and making available text, reference and technical publications, books and brochures on all phases of interest to those engaged in the printing industry.

Printers Library of Printing Institute was dedicated on May 31, 1949 by Fred J. Hartman, Director, National Graphic Arts Association, and John A. Backus, Manager, Education Div., American Type Founders Corp., in ceremonies attended by a number of men engaged in the printing industry. The material in the library is available to all members of the Graphic Arts as well as students, and in addition, the library room is used for small meetings, seminars, lectures and showing of films devoted to the Graphic Arts industry.

to the stereotype melting pot. These push buttons automatically start and stop the apron conveyor.

By referring to Fig. 1 and the halftone illustration accompanying this article, you will see that metal is automatically delivered to the storage hopper by a skip hoist. The hand trucks hold about 1000 lbs. of metal. After the slugs have been dumped into the hopper, the truck is automatically righted and lowered to the floor where the operator removes and returns it to its proper position on the composing room floor. The hand truck bodies measure 18 in. high, by 3 ft. long by 18 in. wide. Each truck is provided with roller-bearing casters and an eye for pulling with hooked rod along the floor.

This equipment, states Mr. Runion, was designed to meet the requirements outlined by Frank Mann, Composing Room Superintendent. The principle was his idea.

Three motors are required to operate the mechanism. The first 1½ h.p. motor drives the apron conveyor through a right angle gear reducer, and a chain and sprocket reduction. The second 1½ h.p. motor drives the inclined conveyor through a similar arrangement. The third, a 2 h.p. motor, drives the hoist through a right angle gear reducer, a chain and sprocket reduction and an additional spur gear reduction. The last two drive motors are reversible. There is a start-stop-reverse push button control for operating the hoist and a limit switch at the top and bottom to shut down the hoist when a bucket arrives at either position.

At Louisville *Courier-Journal* and *Times* Runion Metal Handling Device charges furnace at left automatically with slugs. At right, operator is raising truckful of slugs. Metal in truck will be dumped automatically into hopper.

Handy Type Book

THE sixth edition of the Baird Type Book published by Harry Baird Corp., Chicago advertising typographers, is available to layout men, artists, compositors, advertising agencies, and printing plant owners. The book is highlighted by transparent pages of type alphabets, a type face and point size keying system, and the spacing of specimen lines in groups of five characters. This book should be of high utility to users who are looking for a helpful aid in choosing type faces and sizes.

One section of the book contains complete alphabets printed on glassine as well as on white paper. These pages are used to determine proper type size, weight and face, and to facilitate the rapid decision of type selection. A space is inserted between each group of five letters in both caps and lower case in each of the complete alphabets. This is to provide the user with the true color of the type as it will appear in print.

Body types are represented by 120 two inch type blocks for quickly determining the color of the text. Beneath each block is given the number of characters to 1 inch, the number of words in the block, and whether it was set solid or leaded. Included in the book are 130 complete type fonts in 18 pt. with numerals.

Beneath each showing of 18 pt. type are the numerals and initials as "F M 6-24 8-21 10-17 12-14 14-13 18-19". The initial "F" means that sizes are available in foundry type and the "M" means that particular type is available on the Monotype keyboards, with stocks of reserve type in sort cans. The numerals "6-24, 8-21 etc.," indicate the following: "6-24" means 6 pt. lower case averages 24 characters to the inch set solid. Where an "F" and no count appear, the type starts at 18 pt. or is a script whose characters vary widely so that a character count is impractical.

Another feature of the book is a display of rules, borders, ornaments, initials and decorations. Also the Monotype number is indicated on each specimen type block. This permits the user to write the number in place of the full name of the type face desired.

Specimen pages for the book are printed by letterpress on 8½ in. by 11 in. pages. A 9½ in. by 11½ in. black flexible cover protects the pages from being soiled, torn, or general abuse. The user may remove any page for separate use by means of a 22-ring binder. The price of the book is $5, unless you are a customer, in which case it is free. May be ordered by writing Harry Baird Corp., 18 East Kinzie St., Chicago 11, Ill.

AWT Relocates

American Wood Type Mfg. Co. has completed an expansion program and relocated in new quarters according to a recent announcement by Rube Mandel, President. Included in the 20 thousand sq. ft. of floor space at AWT's new location is a complete woodworking plant especially designed for the manufacture of wood reglets, furniture, cutting sticks and other wood products. Address of the new quarters is 35 West Third St., New York 12, N. Y.

Visual Aid Instruction

Fred Gutfrucht, composing machine maintenance instructor in the Department of Publishing and Printing of the Rochester Institute of Technology, has recently introduced a visual aid method of line composing machine maintenance instruction. Mr. Gutfrucht has had the illustrations in the Linotype Machine Principles manual and the Intertype Book of Instruction photographed to obtain positives for use on a visual aid projector. Using a Vu-Graph Overhead Projector, the positives are projected upon a screen and by the use of a projected pointer, the machine parts and actions are pointed out.

Protective Coating Paints

THE U. S. Stoneware Co. has announced a self-priming vinyl base paint which the sponsor claims adheres tightly to metal, wood, or concrete. Tygon Series K paint was developed primarily to fill the need for a protective coating to resist corrosive conditions.

Manufacturer claims the Series K shows resistance to corrosive fumes of almost all acids and alkalies; as well as to excessive humidity, grease, oil, and alcohols. It is softened by aromatic hydrocarbons, ketones and esters; non-oxidizing; non-inflammable when dry, and possesses an upper temperature limit of approximately 200 deg. F. Tygon Series K Paints are available in black, white, clear, gray, red, green and aluminum.

George S. Dively, President of Harris-Seybold Co., has been named by the Merchants and Manufacturers Association of Los Angeles to be one of ten conference leaders at the M & M's Annual Employer-Employee Relations Conference to be held in October at Palm Springs, Calif. Dively will lead group discussions on the subject *Programmed Management*. "Dively's successes in the encouragement of better employment relations is well known to the paper and printing industry", commented H. C. McClellan, M & M President.

EQUIPMENT & SUPPLIES

Additional information concerning Equipment and Supply items and technical literature may be obtained by addressing your request to *Printing Equipment Engineer*, 1276 West Third St., Cleveland 13, Ohio.

IPI Color Control Program

INSTALLATION of a General Electric recording spectrophotometer has given International Printing Ink Div., Interchemical Corp., an improved method of measuring and analyzing color.

IPI is using the spectrophotometer in a five point program:

1. Measuring color samples to obtain a pen and ink graph of the color's spectral reflectance for a permanent specification of the color.
2. Obtaining color matches which will appear identical under all lighting conditions.
3. Identifying unknown pigments.
4. Determining cause and correction of color variations on the press. In printing, variations can be caused by many factors such as incorrect keying of doctor blades, incorrect setting of fountain catches, uneven make-ready, out-of-true cylinders or rollers, variations in stock caliper, "ghosting", and many others. By spectrophotometrically analyzing a sheet to determine color uniformity, G-E claims it is possible to tell whether or not (a) the over-all color is correct in shade as indicated by the shape of the curves with respect to the standard curve, and (b) the color is uniform over the whole sheet as indicated by the variation or "spread" of the curves. Even under ideal conditions, a certain amount of color variation is inevitable due to the mechanical limitations of presses' ink distribution systems. The ultimate goal of color control is to keep this variation to an irreducible minimum.
5. Correlating the uniformity of printing by different carton manufacturers. In many instances the same carton is produced in different parts of the country, and it is necessary that there be a close color tie-in. By measuring samples of the various plants' production periodically, corrections can be made in the inks or press settings to insure continued color uniformity between plants. Visual working standards which may have changed due to fading and handling are replaced by cartons which follow the OK curve exactly. It is claimed this procedure eliminates the change of visual color standards over long periods of time.

General Electric Recording Spectrophotometer installed by IPI for measuring and analyzing color samples, obtaining color matches, identifying unknown pigments and other operations.

Kodak Ektacolor Film

A NEW type of negative color film, first announced in 1947 by the Eastman Kodak Company, is now available to all professional photographers. The Kodak Ektacolor film produces a negative whose colors are complementary to those which will appear in the final print. It simplifies the making of color prints and photomechanical reproductions by eliminating the need for masking and for separation negatives.

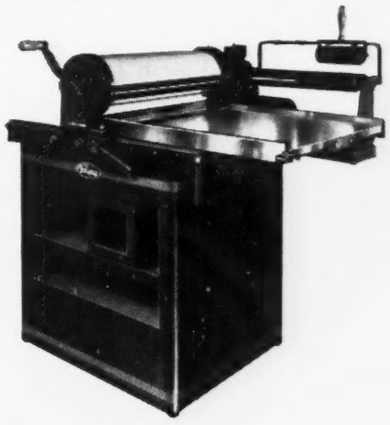
Kodak Ektacolor Film is intended primarily for professional use with artificial light. It is made for processing in the photographer's studio. The film will be supplied in 4 in. by 5 in., 5 in. by 7 in. and 8 in. by 10 in. sheet-film sizes for use in conventional cameras. Chemicals for processing will also be made available.

Announced as available in connection with Kodak Ektacolor Film is the Kodak Pan Matrix Film. This film permits positive color printing matrices to be made directly from Ektacolor transparencies by either contact printing or enlarging through filters without intermediate steps.

A special black-and-white proofing paper for use with Ektacolor Film and a special Kodak Vacuum Register Board to speed printing with Pan Matrix Film were also announced by Eastman Kodak Co.

Newspaper Proof Presses

ANNOUNCEMENT has been made by The Challenge Machinery Co. of the Series M Newspaper Proof Presses. The presses will include four styles: M, ME, MN and MNE (Model No. 2525). Bed size of all styles is 25¼ in. by 35¼ in. and will accommodate full newspaper page forms. The printing surface is 24¼ in. by 23½ in.



Newspaper proof press announced by The Challenge Machinery Co. will accommodate full newspaper page forms.

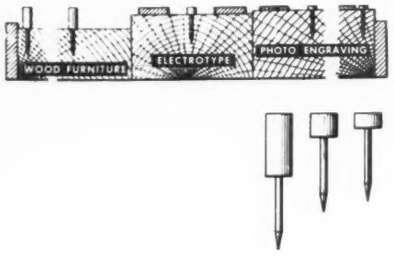
Different features compose the construction of each style press. A hand cylinder trip on the Style M prevents offset on the cylinder packing during the return stroke of the press. A bed lock prevents the bed from moving when sliding the form off the newspaper page truck. Containing the same features as the Style M, the ME press, in addition, is equipped with the Challenge Power Ink Distributor.

Style MN is supplied with the cylinder trip and bed lock and also a bed lifting device which tilts the bed to facilitate the sliding of the form from the bed onto the truck. Style MNE is the same as Style MN except that it is equipped with the power ink distributor.

All the presses in this series are equipped with a steel stand placing the bed 37½ in. from the floor. There are shelves in the stand for paper, ink, wipers and tools. The press with bed centered occupies a floor space of 40½ in. by 44¼ in.

Form Register Marks

DESIGNED to replace the nail for use as a register mark on the guide side of a printed form to show register on the printed sheet is a register mark, termed Blackhead, announced recently by Saunders Printers Supplies. This register mark, more commonly known to printers as a "niggerhead", is made of steel and is manufactured in three heights for use on wood furniture,



Three different sizes of the Blackhead register mark for use on wood furniture, electrotypes and photoengravings.

wood-mounted electrotypes and photoengravings.

The Blackhead is fitted with a needle point permitting it to be pressed into position with the fingers. It is then tapped with a hammer or quoin key until the shoulder is stopped by the base of the furniture, electro or engraving. This makes the top of the Blackhead type high.

Sponsor states that the Blackhead can also be used as a collating and identification marker. In the composing room it can be used as the center of work-and-turn and on tumble forms.

Color Printing Control

PHOTOVOLT Corporation has announced the Photovolt Photoelectric Reflection Meter, Model 610, for color and tone measurements in maintaining the desired color uniformly within a press run, across the sheet, and from one press to another. The instrument is useful for printing plants and buyers of printing, for carton and ink manufacturers, and for newspapers and magazines.

Advantages stated by the manufacturer include: measurement obtained right near the press for immediate correction of ink fountain setting; standardization of color for labels and cartons, to obtain uniformity even when printing in several different plants; measurement of color correctly under any light, thus avoiding off-colors in night shifts; reading of color objectively without relying on personal color perception and judgment; and reproduction of a color at any time and to set definite limits for allowable deviations.

The Reflection Meter is built into a portable wooden housing with cover and carrying strap. It consists of two units: the instrument proper which contains the indicating galvanometer and the controls, and the "search unit" which comprises the light source and photocell. The search unit is connected to the instrument by a flexible cable, 4 ft. in length.

Light from the bulb in the search unit falls on the surface to be tested. The reflected light strikes the photocell and generates electric current which is registered by the galvanometer. For measurements, the search unit is placed on the color area to be tested and can easily be moved from one spot to another.

In its simplest application, the instrument serves to compare sheets of the run with the OK sample. Sheets which read higher than the OK sample are too light and those reading lower are too dark. This can then be corrected by adjustment of the ink flow. By taking readings across the sheet, one can find the points at which changes are required in the fountain setting.

In order to make the photocell responsive to color, it is necessary to use color filters which transmit light only in a certain part of the spectrum and absorb the light of the other parts of the spectrum. To specify a color, states the sponsor, it is necessary to take readings with various color filters. The three color filters furnished with the Reflection Meter are made up from glass which is completely stable and is always available with the same spectral transmission characteristics, claims the manufacturer.

In actual press runs, it will often be necessary to take readings before the ink has dried. Such measurements are entirely possible, but some inks change in tone during the drying process. This will then have to be taken into consideration in comparing the wet samples from the run with the dry OK sheet.

The instrument permits checking the permanency of color by registering the fading which occurs due to the lapse of time or to exposure to light and atmospheric humidity. For gloss tests on gloss inks and varnishes, the standard search unit of the instrument is replaced by other search units which measure specular reflection and are available as accessories.

Another use of the meter is in measuring and specifying the color of colored paper stock which is carried out in the same manner as the tests on printed colors. The opacity of paper stock can also be measured, as well as the brightness of the paper stock.

Photovolt Reflection Meter for color and tone measurements to maintain the desired color uniformly, announced by Photovolt Corporation.

Adhesive Products Bulletin **–The story of adhesive products and the Paisley facilities are presented in this six page, two color bulletin published by Paisley Products, Inc. Ten main divisions of basic adhesives are described. Illustrations depict the technical manufacture and laboratory control methods used in industrial adhesive and packaging adhesive manufacture. Other pictures show adhesives in actual use in packaging, labeling and fabricating machines or operations.**

Roll Slitters and Unwinders

ROLL Slitters and Unwinders is the subject of a 4 page bulletin issued recently by Johnstone Engineering and Machine Co. Included among the illustrations of 12 different machines is a Newsprint Splicer for rewinding butt rolls of newsprint and making diagonal splice. Also shown and described is the Johnstone Synchronized Winder for use behind coating, printing, and other processing machines on paper, fabrics, etc. Construction details of slitter units for all types of Johnstone machines are listed in this two-color, 8½ in. by 11 in. bulletin.

Goss Universal Press

THE Goss Universal Press, recently announced by The Goss Printing Press Co., provides for the production requirements of the intermediate daily newspaper. This group is classified as being between the largest metropolitan and the medium-size dailies. In this respect, the Universal augments the tubular type of press.

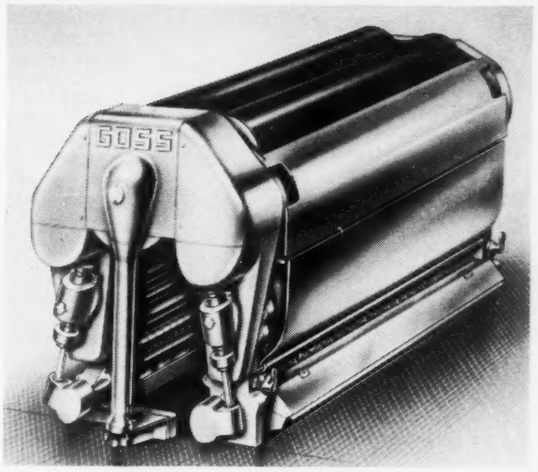
This press follows the original unit type straightline design. This straightline principle in single width, *i.e.*, two-page wide presses, provides for leading all webs from the paper rolls into the folders in a straight line, without the use of angle bars.

Manufacturer states the Goss Universal press will print, fold, and deliver at a normal operating speed of 36 thousand papers per hour. The maximum speed is 40 thousand.

Being of unit design, the accessibility is obtained. The combination of straight line design and unit construction permits operation from a single level.

The stereotype plates required by the Universal press are semi-cylindrical with each plate cylinder carrying two plates around and two across, a total of four pages of broad sheet size, double in the case of tabloid page plate cylinders. These cylinders are carried in anti-friction bearings.

Employing semi-cylindrical plates, the press can be operated straight or collect, and the capacity of each unit is four or eight pages respectively. With the unit plan, the page capacity of a given press can be increased by four pages straight running, or eight pages collect, through the addition of one or more units.



View of Goss Universal Press Unit. Each unit is single width, two semi-cylindrical stereotype plates wide. Rated at normal operating speed of 36 thousand newspapers per hr., printed, folded and delivered. Press is designed for intermediate size daily newspaper.

Additional versatility is provided by paralleling or placing additional presses in tandem. In this way, individual presses can be operated separately or together.

The Universal Press can also be supplied with paper roll frames on one or both ends for single level operation, or it can be furnished with substructure for feeding paper rolls from the floor below.

The space requirements of the Universal Press are confined to the limitations of the smaller plant. Due to the multiple arrangements in which the units can be placed this press can be installed in a low ceiling pressroom, the minimum ceiling height being 9 ft.

All printing couples can be made reversible and provision for adding a color cylinder to any or all units increases the flexibility of the press for printing color. Removable fountain pans, pivoted knife plates and provision for placing inking rollers either inside or outside the unit contribute to versatility from the standpoint of color printing. Depending upon requirements, any number of pages in one to three colors and black can be produced.

The continuous ink feed system is the same as that used on other Goss rotary presses. Ink is fed from the fountain into the inking mechanism in a constant flow. Manufacturer states this results in uniformity of color at all speeds, as well as during acceleration. Universal printing units and folder are shipped assembled. The folder of this press is available with delivery to either side.

The first Goss Universal, a 40 page press, will be installed at the Kankakee (Ill.) *Daily Journal* late this fall. The San Angelo (Tex.) *Standard Times* has recently placed an order for a 64 page press.

Cooksey Web Break Detector and Web Severing System

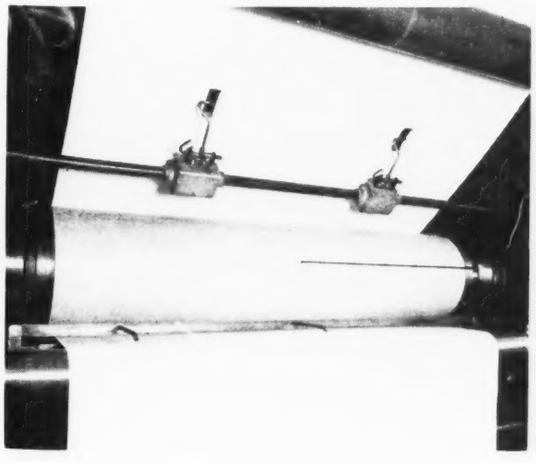
THE Collmar Corp. announces the purchase of the inventions and patent rights to the Cooksey System of Automatic Web Break Detecting, Severing and Clamping equipment for use on all types of magazine and newspaper rotary printing presses.

This system, it is stated in the announcement, is engineered and designed to prevent wrap-ups around the impression or plate cylinders or inking mechanism in the event of a web break. When the press comes to a stop, all units are clear of any paper, and the plate register, makeready and ink setting are untouched. It is claimed the web is under positive control at all times and wrap-ups and plate smashes are eliminated.

The web break detectors are spring loaded and detect a break quickly. In addition, the detectors can be mounted on the dry side of the web. Other safety features are claimed.

The Web Severing and Clamping equipment is revolutionary and is mounted just ahead of the impression cylinder. It clamps and severs, to prevent the oncoming web from entering the unit. A set of solenoid-operated electric trolleys acting as drop rollers snatch the other part of the severed web out of the unit. Thus, states manufacturer, the unit is entirely clean and there is no resultant damage to press, cylinders or plates.

Laurance C. Martin, president of The Collmar Corp., states the Cooksey System was invented three years ago in Louisville, Ky. and has been operating since then in some of the largest magazine publishing houses.



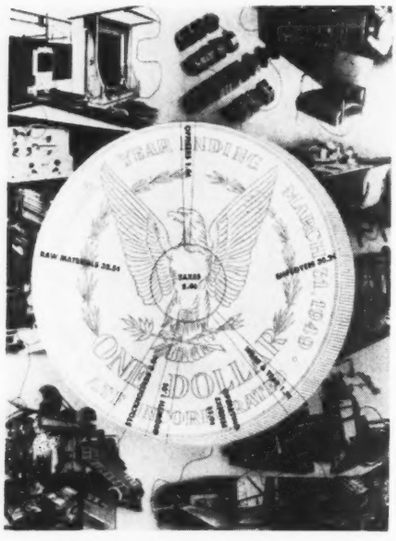
View of impression cylinder on rotary web printing press. Visible are two elements of mechanism used in Cooksey System to detect web breaks and to prevent wrap-arounds of cylinder when break occurs. Detectors are spring-loaded. Web severing and clamping device is visible in front of impression cylinder.

New Sizes Available

THE Challenge Machinery Co. has added five more sizes to its expandable Hi-Speed Furniture for press lock-up, making a total of nine sizes. The new sizes are expandable from 20 picas (closed) to 30 picas and are made in sizes of 10 by 20 picas, 15 by 20 picas, 20 by 20 picas, 25 by 20 picas and 30 by 20 picas. The Hi-Speed furniture is also made in 15 by 30 picas, 20 by 30 picas, 25 by 30 picas and 30 by 30 picas. Each of three sizes can be expanded 20 picas two picas at a time, claims the sponsor, from a closed size of 30 picas to a maximum of 50 picas.

ATF Employees Report

The 1948-49 fiscal year report to employes of ATF Incorporated and its subsidiaries has been released in the form of a jigsaw cutout and a printed report dominated by cartoons. The center of



Jigsaw cutout sent to employes of ATF Incorporated, shows the breakdown of the ATF income dollar during the recent fiscal year.

the 28 piece jigsaw cutout shows the breakdown of the ATF income dollar during the fiscal year recently ended. Surrounding this center piece are photos of some of ATF's products.

In the printed report the screen of a television set is utilized to unfold its story. Principals in the cast of the television show are Thomas Roy Jones, President of ATF Incorporated, and a cartoon character called Mr. ATF Dollar. Products of various ATF companies are used as props in the show. According to the report, total sales for the year ending March 31, 1949, amounted to $37,842,000.

Contact Screen Processes

INFORMATION concerning the Kodak contact screen processes for photolithography has been published in a 20 page booklet released by Eastman Kodak Co. Described and illustrated are the magenta and orange contact screen processes. Equipment and materials required for these processes are also listed. Sponsor states that the line and halftone illustrations shown were chosen specifically to provide a cross-section of copy most difficult to reproduce.

The magenta contact screen process is designed primarily for making lithographic screen negatives for use in the albumen method of platemaking. This process can also be used by the deep-etch photolithographer for making screen positives. The orange contact screen process is for the lithographer using the deep-etch platemaking method, and is designed for making lithographic screen negatives.

Miniature Goss Unitube Plate—Paper weights appearing on executives' desks have taken on many forms since necessity has deemed such oddities indispensable. The latest contribution to this line has been made by Al Fishburn, Stereotype Superintendent of the Redwood City (Calif.) *Tribune*, who has made a few miniature Goss Unitube Plates complete with tension lock-up grooves. Originally, one of the miniature Unitubular plates was made for Ray Spangler, Publisher of the *Tribune*. *Printing Equipment Engineer* was fortunate enough to receive one of these paper weights from Mr. Fishburn. The illustration is shown in the event a number of executive readers may wish to reproduce the front page in miniature of their own newspaper. This miniature is 1/33 the actual size of a Unitubular plate used on Goss newspaper presses. It is a reproduction of the *Tribune*'s front page of December 3, 1948. Mr. Fishburn reduced the front page by photoengraving. The mat was molded from the miniature photoengraving and cast in an improvised circular casting box. The miniature plate is silver coated over a nickel base. It measures $1\frac{3}{8}$ in. diam.; $2\frac{5}{8}$ in. length; the wall is approx. $\frac{3}{16}$ in. thick, and the little plate weighs $9\frac{1}{2}$ oz.

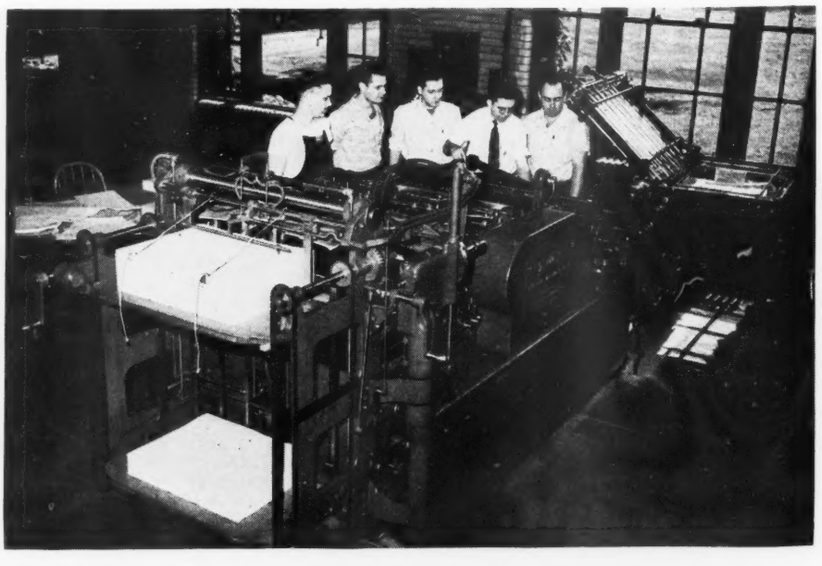
Kellogg's Denver Agent

Kellogg Switchboard & Supply Co. has announced that A. E. Heinsohn Printing Machinery and Supplies of Denver, Colo., has been named exclusive sales representative in that territory for the Kellogg Type-O-Writer Keyboard. The Heinsohn firm is located at 1443 Blake St., in Denver.

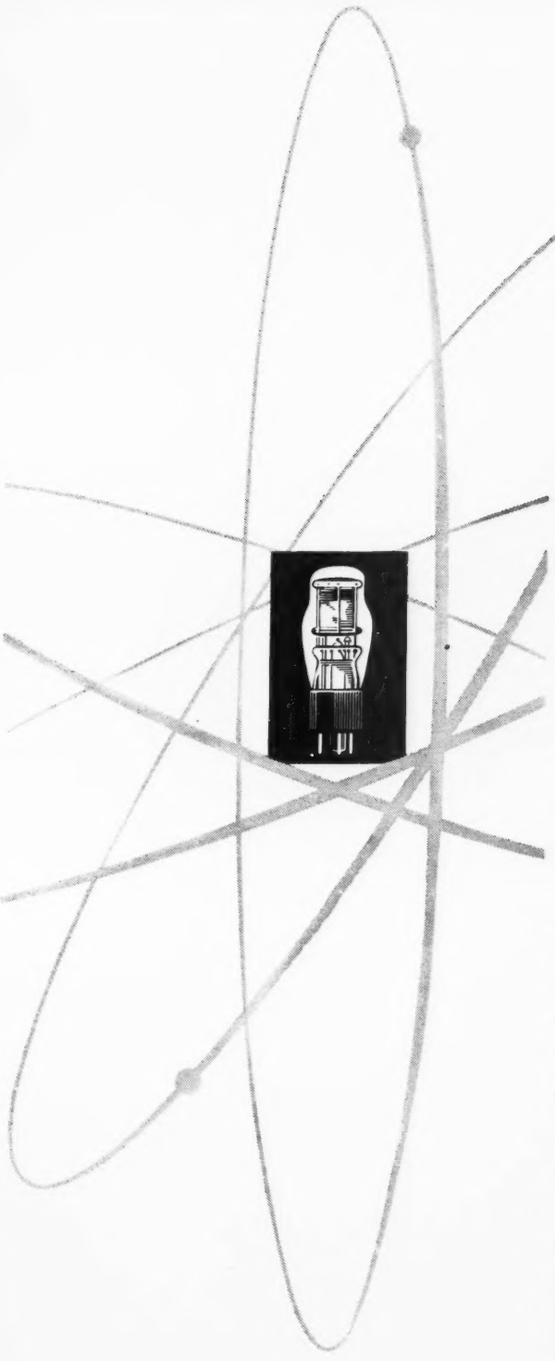
IPI Essay Contest

For the 14th consecutive year, International Printing Ink will sponsor the annual IPI Essay Contest in cooperation with the National Graphic Arts Education Association. Additional cash and other prizes have been approved for both national winners and printed award winners in the 1949-50 contest. A new feature to this year's contest are awards for the best designs for the new Certificate of Honor. The sponsors have chosen *Color Printing as an Economic Force* as the subject for this year's essay contest. Further information may be obtained by writing: Fred J. Hartman, Educational Director; National Graphic Arts Education Assoc., 412 National Savings and Trust Bldg., 719 Fifteenth St., N.W., Washington 5, D.C.

Announcement has been made of the addition of Edward Powell to the sales staff of Gaetjens, Berger and Wirth, Inc. Mr. Powell will cover territory consisting of the metropolitan areas of the east as far west as Cleveland. He plans to work out of the Brooklyn, N. Y. office and will maintain residence in Middle Village, Long Island, N. Y.



Carnegie Adds Miller Press—A Miller 21 in. by 28 in. TW two-color press has been added to the equipment of the Printing Administration Dept., Carnegie Institute of Technology, Stanley C. Hlasta, Assistant Head of the Department, has announced. Mr. Hlasta, in making the announcement, pointed out that the press has been obtained for the training of students in the understanding of printing problems and machine capacities. The Miller two-color press, which has a range of operating speeds from 2000 to 4000 sheets per hour, occupies a floor space of 17 ft., 6 in. by 7 ft., $9\frac{1}{2}$ in.



Now available . . .

the new

electronic

heat control
for special conditions

A product of

Linotype Research

The new Electronic Metal Temperature Control has been developed especially to combat abnormal metal temperature variations due to local conditions. Even under the most unusual circumstances, it holds temperatures to proper operating levels. When used under normal composing room conditions, the Electronic Control provides exceptionally close metal temperature regulation.

This control has been tested with great success for almost two years in plants having special heat control problems.

Best of all, the new Linotype Electronic Control has no moving parts. It operates on an entirely different principle. It utilizes a common, industrial type Thyratron tube which is actuated by the slightest temperature changes.

If you have a special problem in maintaining metal temperatures to extremely close tolerances, the Linotype Electronic Control should solve your problem. It can be ordered for new machines at added cost or purchased for outstanding equipment. For 110- or 220-volt, 50 or 60 cycle, a-c only. Call or write your nearest Linotype Representative.

LINOTYPE

Linotype Spartan Black, Century Expanded and Times Roman

MERGENTHALER LINOTYPE COMPANY
29 Ryerson Street, Brooklyn 5, New York

Leadership through Research

Conference Dates *(with organization names and principal officers)*

American Photoengravers Association — Frank J. Schreiber, Commissioner, 166 W. Van Buren St., Chicago 4, Ill.

ANPA Mechanical Conference—1950 Conference to be held at Hotel Statler, Buffalo, N. Y., June 5, 6 and 7. Chairman of the Committee, Edwin H. Evers, Production Manager, St. Louis *Globe-Democrat*. Acting Manager ANPA Mechanical Dept., Vernon R. Spitaleri, 370 Lexington Ave., New York 17, N. Y.

Fifth District Craftsmen's Conference—1950 Conference to be held in Toledo, Ohio. Place and dates to be announced later. Ollie G. Fricke, Fifth District Representative, 43 West Apple St., Dayton, O.; Secretary-Treasurer, John Fisher, Superintendent, Reardon-Parshall Co., 466 Larned St., N. W., Detroit, Mich.

Great Lakes Newspaper Mechanical Conference—Hotel Schroeder, Milwaukee, January 15, 16, 17, 1950. President W. R. Coddington, Composing Room Supt., Youngstown (O.) *Vindicator;* Secretary Al. P. Oberg, Flint (Mich.) *Journal;* Arrangement Chairman J. E. McMullen, Pressroom Supt., Milwaukee *Journal;* Chairman Mfrs. and Suppliers Committee, George Morrison, Morrison Co., 125 W. Melvina St., Milwaukee 12, Wis.

Illinois Newspaper Mechanical Conference—1949 Conference to be held at Orlando Hotel, Decatur, Ill., October 8 and 9. President, Sid Scott, Decatur (Ill.) *Herald-Review;* Secretary-Treasurer, Wilbur L. Augspurger, Peoria (Ill.) Newspapers, Inc.

Intl. Assoc. Electrotypers & Stereotypers — 1949 convention to be held at Mount Royal Hotel, Montreal, Quebec, Canada, September 19, 20 and 21. A. P. Schloegel, Executive Secretary, 701 Leader Bldg., Cleveland 14, Ohio.

International Association of Printing House Craftsmen — President, Russell J. Hogan, Plant Manager, Blanchard Press, New York, N. Y.; Executive Secretary, Pearl E. Oldt, 18 E. Fourth St., Cincinnati 2, Ohio.

International Typographic Composition Association—1949 Convention to be held at Hotel Statler, Boston, Mass., October 13, 14 and 15. Frederick H. Lutz, President, Brockton, Mass.; Frank M. Sherman, Executive Secretary, 1015 Chestnut St., Philadelphia 7, Pa.

Iowa Daily Newspaper Mechanical Conference — 1950 meeting in Ottumwa, Ia. President, Howard (Red) Lee, Composing Room Supt., Ottumwa (Ia.) *Courier;* Secretary-Treasurer, Paul F. Kamler, Mechanical Supt., Clinton, (Ia.) *Herald.*

Kansas Newspaper Mechanical Conference — 1949 meeting to be held at Hotel Kansan, Topeka, Kan., October 1 and 2. President Vern Williams, Mechanical Supt., Topeka Newspaper Printing Co., Topeka, Kan.

Lithographers National Association — President, Randolph T. Ode, President, The Providence Lithograph Co., Providence, R. I.; Executive Director, W. Floyd Maxwell, 420 Lexington Ave., New York 17, N. Y.

Missouri Newspaper Mechanical Conference — Secretary-Treasurer, O. K. Hammitt, Mechanical Supt., Moberly (Mo.) *Monitor-Index.*

National Association of Litho Clubs — Secretary, William J. Stevens, 317 West 45th St., New York 19, N. Y.

National Association of Photo Lithographers — 1949 convention will be held at Hotel Statler, New York, N. Y., October 19, 20, 21 and 22. Executive Vice President, Walter E. Soderstrom. 317 West 45th St., New York 19, N. Y.; Executive Secretary, William J. Stevens, 317 West 45th St., New York 19, N. Y.

National Graphic Arts Education Association — John G. Henderson, President; Fred J. Hartman, Educational Director, 719 Fifteenth St., N. W., Washington 5, D. C.

National Graphic Arts Exposition — International Amphitheatre, Chicago, September 11 to September 23, 1950. Headquarters for National Graphic Arts Exposition, Inc., at Room 802, 105 W. Monroe St., Chicago. President, A. E. Giegengack; Secretary, S. Frank Beatty, Graphic Arts Assoc. of Illinois, Chicago. During the period, September 11 to September 23, 1950, a number of Graphic Arts associations will hold their annual conventions as follows: Intl. Assoc. of Printing House Craftsmen, Hotel Stevens, Sept. 10, 11, 12 and 13, 1950; Intl. Typographic Composition Assoc., Sheraton Hotel, Sept. 14, 15 and 16; Printing Industry of America, Palmer House, Sept. 17, 18, 19 and 20, 1950; National Graphic Arts Education Assoc., Hotel Sherman, Sept. 21, 22 and 23, 1950.

National Printing Equipment Association, Inc. — 1949 meeting to be held at Hotel Biltmore, Los Angeles, Calif. Directors meeting, November 14; Members meeting, November 15. President, R. Verne Mitchell, Harris-Seybold Co., 4510 E. 71st St., Cleveland 5, O James E. Bennet, Secretary, 140 Nassau St., New York 7, N. Y.

New England Mechanical Conference — 1949 Conference, Hotel Statler, Boston, Mass., October 29 and 30. President, George F. Marshall, Mechanical Supt., Portland (Me.) *Press-Herald-Express.* Secretary-Treasurer, Walter C. Crighton, Comp. Room Supt., New London (Conn.) *Day.*

Northwest Mechanical Conference — 1950 Conference, Hotel St. Paul, St. Paul, Minn. Tentative dates, March 10, 11, 12. President, Joseph J. Cory, Chief Composing Room Machinist, St. Paul (Minn.) *Dispatch* and *Pioneer Press.* Secretary-Treasurer, Ralph Carson, Dunwoody Industrial Institute, Minneapolis, Minn.

Pacific Mechanical Conference—1950 Conference to be held in San Francisco. Date to be announced later. President, Fred Gross, Mechanical Supt., San Francisco *Chronicle;* Secretary for the North, Edw. N. Conley, color press foreman, San Francisco *Chronicle;* Secretary for the South, Fred J. Moyer, Los Angeles *Daily News.*

Pacific Society of Printing House Craftsmen — Secretary-Treasurer, R. W. Hardy, 71 Columbia St., Seattle 4, Wash.

PNPA-NJPA Joint Mechanical Conference —1950 Conference to be held at Hotel Claridge, Atlantic City, N. J., April 14 and 15. Conference director, Theodore A. Serrill, PNPA Associate Manager, Telegraph Bldg., Harrisburg, Pa.

Printing Industry of America — Hotel Biltmore, Los Angeles, November 13-17, 1949. James R. Brackett, General Manager, 719 Fifteenth St. N. W., Washington, D. C.

SNPA (Eastern Div.) Mechanical Conference — Secretary, Tom Tanner, c-o SNPA, P.O. Box 1569, Chattanooga 1, Tenn.

SNPA (Western Div.) Mechanical Conference—Chairman, George N. Guthrie, Pressroom Supt., Little Rock (Ark.) *Gazette;* Secretary, C. W. Tabb, 723 Texas Bank Bldg., Dallas, Tex. 1950 Conference dates and meeting place to be determined later by Executive Committee.

Technical Association of the Lithographic Industry — (TALI)—1950 meeting scheduled for second week in April, Rochester, N. Y. President, Michael H. Bruno, Lithographic Technical Foundation, Glessner House, 1800 So. Prairie Ave., Chicago 16, Ill. Secretary-Treasurer, Geo. W. Wilhelm, 814 N. East Ave., Oak Park, Ill.

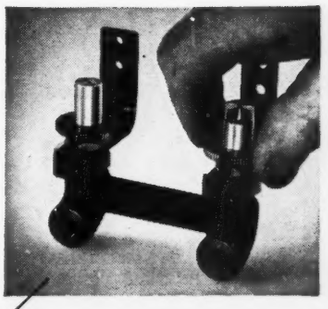
Here are more new developments from Linotype Research

To simplify your machine maintenance and operation, Linotype brings the latest in machine refinements. They are now supplied *on every Linotype being shipped.*

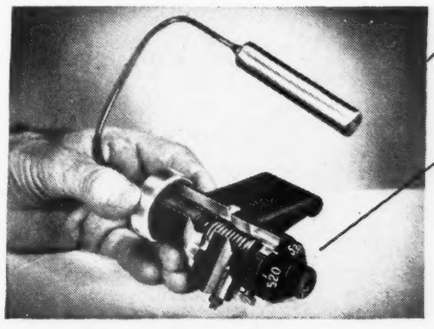
The new gas pot is equipped with separate Micro-Therm controls for both mouthpiece and crucible. New adjustable orifices on the gas inlet permit the pot to be used for any kind of gas. Also, Linotype's Micro-Therm electric pot (extra—not illustrated) has been further simplified to provide high efficiency with less attention from the operator and machinist.

Linotype's cam-operated assembling elevator and automatic line delivery slide eliminate a machine adjustment. A single matrix can be raised in the assembling elevator without danger of twisting or falling out. The line delivery long finger can now be set for the longest line with no need for readjustment when different measures are to be composed.

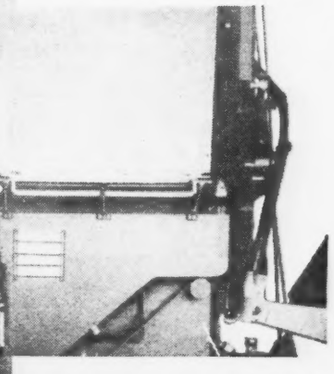
And there are still more improvements on new Linotypes—all stemming from intensive research. Linotype Research works with your Linotype representative to plan more efficient composing rooms. Call or write if you want help with your long-term modernization plans.



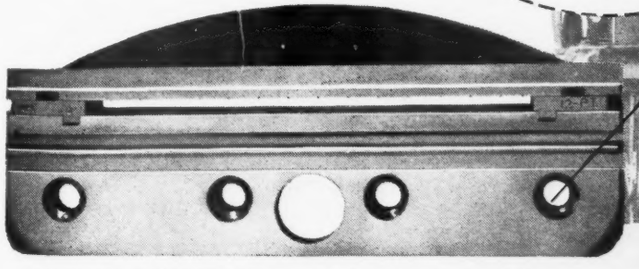
EASY ADJUSTMENT of new orifices permits pot to be quickly adapted to any kind of gas. Simple instructions show how to adjust orifices for most economical operation. The complete pot has proven itself through two years of field testing under varying conditions.



BETTER SLUGS result from more uniform pot temperatures made possible with the new Linotype gas pot. Mouthpiece and crucible temperatures can now be set individually with separate Micro-Therm controls. The automatic controls respond instantly to temperature changes of metal and mouthpiece.

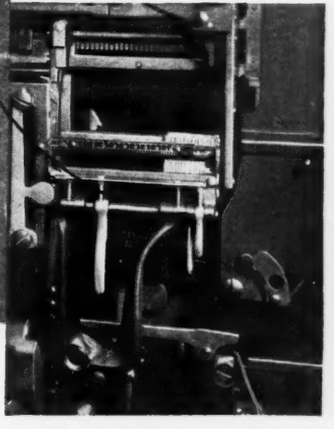


SAVE ADJUSTMENTS with improved line delivery slide and assembling elevator. The long finger need never be adjusted for different measure lines. The cam-operated elevator gate moves inward as the assembling elevator rises—prevents twisting of matrices.



TO CUT MAINTENANCE, all Linotype molds are now Linolized*. New process minimizes metal adhesion to molds. Linolized molds make ejection smoother—help cut matrix damage. Linolizing is free on all new Linotype molds.

*TRADE MARK—SURFACE TREATED



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LINOTYPE

LEADERSHIP THROUGH RESEARCH

Linotype Spartan Family and Times Roman

Patents

For The GRAPHIC ARTS

All new patents for the Graphic Arts are reported exclusively for Printing Equipment Engineer by Invention, Inc., an industrial patent research organization in Washington, D. C. Invention, Inc., presently has the only staff in the country that examines, in the U. S. Patent Office, the complete printed copy, drawing by drawing and page by page, every one of the several hundred new patents issued each week. Printing Equipment Engineer is the only trade publication in its field offering a report based on this complete coverage. For copies of the patents listed here specify the patent numbers and send 25c for each separate patent, or 10c for each trade mark or design patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Covering patents issued July 5, July 12, July 19 and July 26.

Binding, Cutting, Perforation

During the four weeks covered by this report, no patents have been issued for this heading.

Composing Room Equipment

2,475,494. AUTOMATIC MATRIX CLEANER. An improvement in line casting machines is provided in the form of an attachment by which the reference sides of the type matrices may be cleaned while the machine is in operation. A sleeve is secured to the machine along the path of travel of the line unit of matrices. A piston bearing a wiper is movable in the sleeve; piston is spring-urged toward moving line of matrices so that wiper can contact reference sides of the passing matrices during travel of line past end of piston. Piston is prevented from obstructing moving line by a stop which limits its forward movement. The piston can be retracted to a non-wiping position by retracting a pin secured thereto and projecting from a slot in the sleeve. The pin is moved into a lateral branch of the slot to lock the piston against force of the spring. Invented by John F. Gunderman, Sr., Buffalo, N. Y. Unassigned. Application June 8, 1945. 3 claims.

2,475,497. PHOTOTYPOGRAPH FILM ADVANCING AND FLASH CONTROL MEANS. Improvements in machines for arranging characters in desired orderly sequence for purposes of reproduction in printing machines are disclosed. The machine for composing text material photographically makes use of high speed light flashes from a high speed flash lamp for illuminating the characters of a character bearing drum. The lamp is caused to flash when a selected character is in desired position relative to the photographic medium during the course of the relative movement of the character bearing drum and photographic medium. Invented by Charles W. Harrold, University Heights, and Howard A. Pritchard, Hiram, Ohio. Assigned to Harris-Seybold Co., Cleveland, Ohio. Application November 15, 1944. 18 claims.

2,477,499. PILLOW DELIVERY SLIDE STOP BRACKET FOR TYPESETTING MACHINE braces or wedges lines of matrices so as to prevent loose lines and breakage of the matrices. The pillow or cushioning device may be attached to the track of the line delivery slide of the typesetting machine. A threaded opening extends through the pillow body and a threaded stud which fits in such opening is adjustable axially in same and has a central opening in which a rod is slidable. There is a plate on the rod and also a plate on the threaded stud, the plates being connected by a spring which takes the shock of the delivery slide upon the rod. Another spring is placed on the rod ahead of the body and abuts a head on the rod so as to further absorb shock from the slide. Invented by Emil Szubzda, New Bedford, Mass. Unassigned. Application September 10, 1947. 4 claims.

2,477,514. TYPE DISPENSER CASING has the usual chamber for receiving a stack of type, which chamber extends outwardly to the edge of casing where a type discharge opening is formed. An ejector is movable from a retracted position within chamber to contact the inner end of the lowermost type and eject it through the discharge opening. A plunger moves inwardly and outwardly relative to the casing and at its inner end connects with the ejector. Its outer end projects beyond the open end of casing. The outer end of plunger has a finger spaced from and extending parallel to the edge of and near the opening. The finger piece has a lateral extension across the opening, but spaced above the bottom of same to permit the passage of lowermost type through the opening. The parts are so constructed and arranged

WOES of LENNY LINECASTER
HEY! YOU MUST BE ROLLIN' IN DOUGH TO LOAF LIKE THAT!
SPLAT
NAW... LOSING DOUGH EVERY MINUTE! I CAN'T MELT FAST ENOUGH FOR THE BIG TYPE FACES!
WE HAD THE SAME TROUBLE UNTIL WE GOT MONOMELTS! NOW WE FEED CLEAN MOLTEN METAL TO THE MACHINE POT AS FAST AS IT IS TAKEN OUT!
THAT'S A GOOD ANSWER! I'M GOING OVER TO SEE HOW IT WORKS!

LENNY SAYS...

Monomelt's controlled metal feeding keeps the machine pot metal level constant. Whether your slugs are 6 point 12 em or 36 point 30 em, the exact amount of metal withdrawn for each slug is restored immediately to the machine pot.

THE MONOMELT CO., Inc.

1611 POLK STREET N. E. MINNEAPOLIS 13, MINNESOTA

that inward pressure upon the finger piece causes the ejector to advance from retracted position and the lateral extension to obstruct the opening. This prevents ejection of the remaining type until it is needed. Invented by Edward W. Flood, Hopkinton, Mass. Assigned to Dennison Manufacturing Co., Framingham, Mass. Application April 26, 1947. 12 claims.

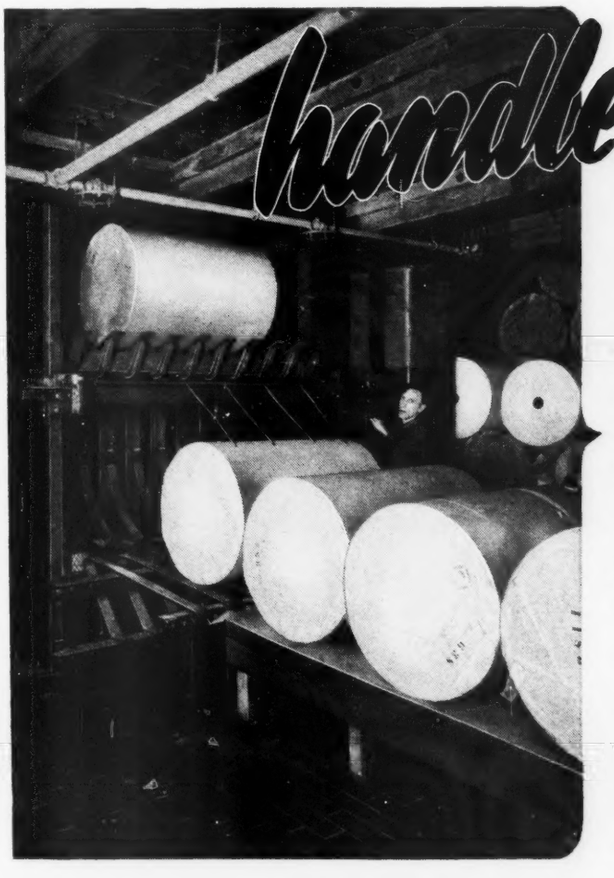
Feeding, Folding, Delivery

2,474,983. FEED TABLE AND FRONT GUIDE DEVICE adjusts the front lay of sheets being fed to a printing press. The adjuster is located on the feeder side where it is convenient for an operator to make adjustments while both the feeder and press are in operation. The arrangement provides a movable sheet registering table, a sheet control which moves with the table and includes a sheet detector, front guides and cover plates for accomplishing the front lay of sheets fed to the press. Additional sheet controls are mounted to move independently of the movement of the table and include side guides, introducing nozzles and sheet slow-down members. A sheet transfer device uses grippers for handling the sheets. A control for the latter is arranged at one side only of the feeder for selectively effecting movement of the table together with associated sheet controls parallel as well as angularly with relation to the axis of the transfer device and in the plane of the sheets for the purpose of modifying the front lay of the sheets. Invented by Henri E. Peyrebrune, River Forest, and Arthur Wormser, Riverside, Ill. Assigned, by mesne assignments, to Miehle Printing Press and Manufacturing Co., Chicago, Ill. Application May 28, 1947. 18 claims.

2,474,997. SHEET DELIVERY CONTROLLING METHOD AND APPARATUS of the type including a delivery table and a traveling carrier provides a curvilinear sheet guide arranged in the path of sheets to be delivered. The device is arranged to engage and restrain each delivered sheet, thus controlling it before and after being released by the sheet carrier and prior to being deposited on a sheet receiving or delivery table. An aerodynamic control operates with the curvilinear sheet guide and restraining device and is arranged in the paths of the sheets so as to act on them for the purpose of avoiding fluttering of the trailing portions of the sheets. This assures contact with the restraining device until sheets are released. The aerodynamic control includes louvres formed in the curvilinear guide and unobstructed air gaps located in the curved part of guide. There is a confined air gap in between the guide and the restraining device and a blast of air is directed onto the sheets in the vicinity of at least one of the gaps while the sheets pass over them. The restraining device can be adjusted according to the size of sheets to be handled by the provision of a curtain which can be shut off one or more of the air gaps. Invented by Arthur Wormser, Riverside, Ill. Assigned, by mesne assignments, to Miehle Printing Press & Manufacturing Co., Chicago, Ill. Application February 21, 1947. 6 claims.

2,476,577. SHEET SEPARATING MECHANISM. The mechanism is of the type having a suction or mechanical gripper arranged to grip each uppermost sheet in a pile and a presser foot. Invention is concerned with improvements in the presser foot or second sheet stop. In one arrangement, one spring is employed for lowering, under cam control, the pressure foot on to the pile and for applying the initial pressure to the pile. A second spring, under variable loading, is employed for increasing the pressure. A cam controlled movable anchor or abutment may be used for increasing the loading of second spring. Cam used for this purpose may be independent of that employed for lifting and lowering the presser foot. Invented by Headley Townsend Backhouse, Wentworth, England. Unassigned. Application May 26, 1948; in Great Britain December 11, 1946. 15 claims.

2,477,405. SHEET SETTLING CONTROL for a vertical type printing press corrects a non-uniform pick-off of the uppermost sheet from the stack and automatically, with the aid of gravity and an attendant air current, corrects curling and buckling tendencies of the rear part of a sheet and realigns any which may have its rear edge oblique and unrestrained during its transfer. The control is placed between the printing couple and a sheet-stack support of the press and takes the form of a sheet transfer board



heavy newsprint rolls with lighter payrolls

You can cut handling costs on newsprint rolls at the flip of a latch with a G-W *Pneumatic* Lowering Machine. All you do is feed-in the rolls, any size, and they are on their way down to your presses or to storage, wherever you want them.

Any way you look at it, a G-W Tray Elevator or Pneumatic Lowering Machine saves you money. Besides saving labor, it eliminates damage to the rolls. Hinged loading fingers pick them up carefully, lower (or lift) them individually and discharge them gently, by gravity.

And if you want to eliminate "man-handling" altogether in your plant, investigate G-W's efficient line of economical Conveyors. You can get a low-cost set-up for mechanical handling of stereos, magazines, bundles, mail sacks, etc., throughout any part of your plant. Write now and ask for a G-W Engineer to figure with you on a cost-saving solution to your elevating and conveying problems.

GIFFORD-WOOD CO.

Since 1814
Hudson, N. Y.

420 LEXINGTON AVE.
NEW YORK 17, N. Y.

565 W. WASHINGTON ST.
CHICAGO 6, ILL.

SPECIALISTS IN EQUIPMENT FOR MECHANICAL HANDLING OF MATERIALS

which tilts to reversed obliquity from horizontal while being raised and lowered. An upstanding backstop along the rear border of the transfer board has its forward face formed with a stepped or zig-zag formation which is at an angle of about 80° from the horizontal measured between the forward face and its rearwardly extending bottom. Invented by Frank Casper, Cleveland, Ohio. Assigned to Kenneth H. Kolpien, Cleveland, Ohio. Application July 17, 1947. 3 claims.

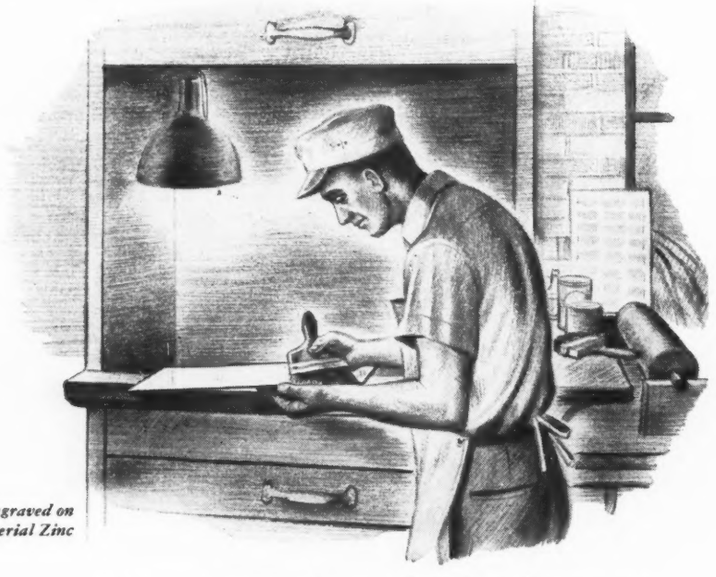
Plate Making

2,474,889. STEREOTYPE PLATE is for use in a tension lock-up. An article appeared on this construction in the March, 1945, issue of *Printing Equipment Engineer,* pages 11 to 15. The construction finally patented briefly pertains to a plate which may be tensioned circumferentially about a cylinder. It has pockets in its concave surface for the reception of gripper fingers. The pockets are arranged in two series near the respective leading and trailing edges of the plate. All pockets are elongated and have smoothly arched contours both longitudinally and circumferentially of the plate. They are undercut with their bottom walls being inclined at a small angle of about 15 degrees with reference to a plane normal to the medial plane of symmetry of the plate. The plate is solid between the bottoms of the pockets and near the leading and trailing edges. Invented by Curtis S. Crafts, Oak Park, Ill. Assigned to The Goss Printing Press Co., Chicago, Ill. Application June 13, 1945. 1 claim.

2,475,980. LIGHT-SENSITIVE PIPERINE COMPOSITIONS. A method is disclosed of forming a photographic relief image. It comprises coating on a support a sensitive material comprising organic acid salt of piperine and a peroxide accelerator such as benzoyl peroxide, exposing the material to light under an image, and washing away the unexposed parts of the material. The process is generally applicable to nearly all photoengraving methods. Invented by Alexander Murray, Rochester, N. Y. Assigned to Eastman Kodak Co., Rochester, N. Y. Application April 15, 1946. 6 claims.

2,476,413. METHOD OF REGRAINING ALUMINUM PLATES. Coating grained aluminum lithographic plates are reclaimed by removing the coatings and the images carried thereby from the plates by immersing them, alternately in a sulfuric acid solution and an alkali metal hydroxide solution, and then regraining the plates by immersing them in an aluminized alkali metal carbonate solution. Invented by Robert L. Heath and Edmund C. Huxley, Indianapolis, Ind. Assigned to General Motors Corp., Detroit, Mich. Application June 2, 1943. 5 claims.

THE "Acid Test" IS IN THE ETCHING



• *Engraved on Imperial Zinc*

• As every engraver knows, there is much more to a sheet of good engraving zinc than is ever apparent on visual inspection. The "acid test" of the fine, uniform grain of Imperial Zinc is in the etching . . . the way it takes powdering with only normal care to prevent shoulders and undercutting . . . the ease with which it stands up even under multiple bites when extra depth is called for.

Put Imperial Zinc to the "acid test" yourself. Order a case today. You'll agree there *is* a difference.

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SERVING THE GRAPHIC ARTS *Exclusively*

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In Canada: Latimer Limited, 90 Niagara St. Toronto 2B

Printing Inks

2,476,952. NONCRYSTALLIZING PRINTING COMPOSITIONS comprise aromatic solvents as the vehicle and permit the employment of copper-phthalocyanine or mixtures thereof with monochloro-copper-phthalocyanine as the pigment, without running into the trouble of crystal growth. This tendency to crystal growth is effectively overcome by admixing with the principal color a small quantity of tin-phthalocyanine compound. The coloring compositions include printing inks for paper, such as rotogravure inks. Patents Nos. 2,476,950 and 2,476,949 are companion patents. Invented by Earl Edson Beard, Wilmington, Delaware. Assigned to E. I. du Pont de Nemours & Company, Wilmington, Delaware. Application August 22, 1947. 7 claims.

Printing Presses and Equipment

2,475,356. STATIC DISCHARGE INDICATING DEVICE. The device facilitates the discharge of static electricity from moving sheets, webs, and films, such as paper and cloth. It provides a positive indication of the discharge of electricity. The indication depends only on the magnitude of the discharge and not on the polarity of the charges on the moving sheet. There are no mechanical moving parts; an accumulator and a thermionic vacuum tube are used. Invented by Emery Meschter, Towanda, Pa. Assigned to E. I. du Pont de Nemours & Co., Wilmington, Del. Application July 22, 1948. 6 claims.

2,477,141. INK FOUNTAIN. Improvements are disclosed in combination page and column ink adjustments for rotary printing presses. Invention provides separately operable means for page shutoff and column adjustment as

Style KP has Power Inker
Style KA has Automatic Inker

IT'S A CHALLENGE

It's the new Series K. And that's another way of saying ***clean, sharp, uniform proofs every time.***

The new Challenge Series K Proof Presses are all cylinder press design with the cylinder revolving while the reciprocating bed rides on anti-friction rollers. All three models are equipped with cylinder grippers and micrometer side guides, a foot trip to prevent offset on the cylinder packing during the return stroke, and a sliding feed board to give easy access to the cylinder packing. Two sizes in each style.

Get complete details today!

Style KE has 20" Ink Distributor

Style K has Ink Plate

613

THE CHALLENGE MACHINERY COMPANY

GRAND HAVEN, MICHIGAN

Challenge Reg. U. S. Pat. Off.

Over 50 Years in Service of the Graphic Arts

DEALERS IN ALL PRINCIPAL CITIES

"Mat Performance is the KEY to Good Printing Plates"

—says the Publisher in deciding an office argument. "It's a relatively small item but vital to our production. Mr. Goodman is in charge of stereotyping. If he feels surer of results with Certified Mats, then we stay with Certifieds. Penny saving is not as important as clear, clean production every day."

For dependable stereotyping, rely on Certified Mats

Certified DRY MATS

CERTIFIED DRY MAT CORPORATION, 9 Rockefeller Plaza, Dept. M, New York 20, N. Y.

Planning

New Printing Plant . . .

So You Can Work Intelligently With Architect-Engineer

● A 16 page booklet reprinted from the December issue of *Printing Equipment Engineer* especially for the executive who is building a plant or revamping his present facilities. Featured are two color plant diagrams, fundamentals of plant layout, use of templates in making scale plant layouts, value of rolling tables, selecting the site, locating equipment, working space between equipment items, color, light, ventilation—to mention but few of the highlights incorporated in this article.

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PRINTING EQUIPMENT *Engineer*

1276 West Third Street **Cleveland 13, Ohio**

well as quicker adjusting means for the ink fountain. The column adjusting means, which terminates in a central station, is adapted to retain settings without the attention of the operator. When the page shutoff is released, the existing column adjustment is restored. Invented by Willard M. Pollock, Glen Ellyn, Illinois. Assigned to Goss Printing Press Company, Chicago, Illinois. Application August 31, 1945. 2 claims.

2,477,288. CUTTING DIE FOR PRINTING PRESSES OF THE PLATEN TYPE. This invention relates to presses of the type in which the inking rollers do not contact the cutting or impressing die. Cutting of the inking rollers and inking of the die cutting edge is avoided. Under the arrangement a large number of different die impressing elements may be applied to meet the requirements of a particular job. The position of the die is outside of the course of ink roller travel and between the platen and press bed and separate from the chase in which the conventional cutting die is locked. The die is movably secured to the gripper arms so that the paper operated upon may be die-cut simultaneously with printing and without cutting the die or damaging the rollers. Invented by William O. Crossley, Toledo, Ohio. Unassigned. Application February 11, 1946. 3 claims.

For Patent Research in the U. S. Patent Office, or a prompt estimate on any type of search, address INVENTION, INC., Munsey Bldg., Washington, D.C.

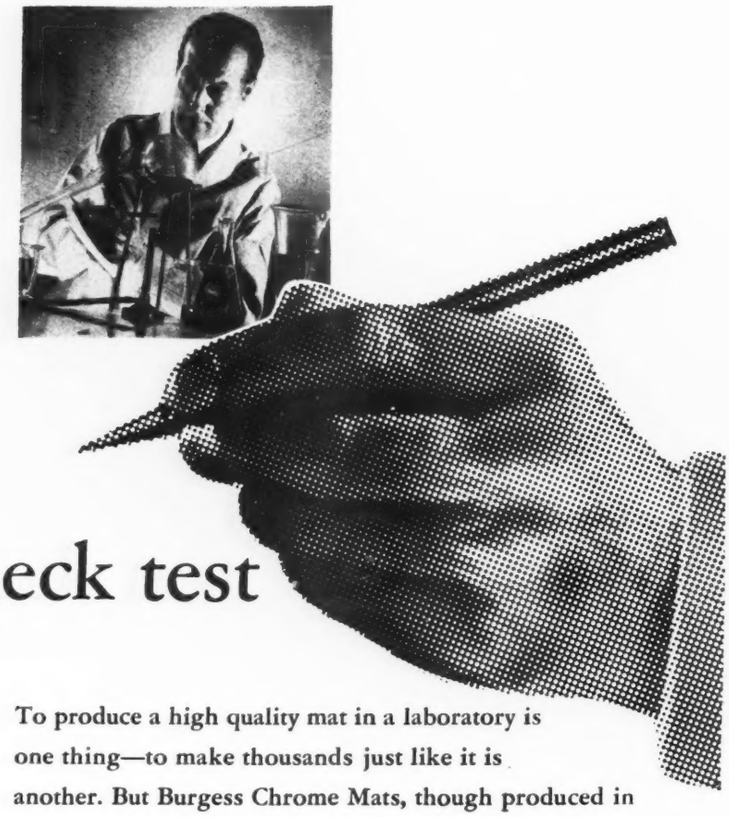
EXECUTIVE Cs

Stanley Myers, assistant mechanical superintendent of the Philadelphia *Bulletin* since 1944, has accepted appointment as production manager of the Atlanta *Journal*, according to an announcement made by George C. Biggers, Sr., President of the *Journal*. Mr. Myers attended Wabamaker Institute Printing School. At one time he operated his own advertising agency. His career with the *Bulletin* included positions of copy writer, art director and copy chief. He is a member of the ANPA-AAAA Joint Committee on Newspaper Printing. He made a splendid report on newspaper color comic advertising at the June ANPA Mechanical Conference, Chicago. Myers is 42, and is married with two children.

Stanley Myers, appointed Production Manager of the Atlanta (Ga.) *Journal*.

The Champion Paper and Fibre Co. has announced the appointment of Stuart E. Arnett to the staff of the New York sales organization. Mr. Arnett has previously been associated with the Printing Machinery Div., Electric Boat Co. and the Harris-Seybold Co. He attended Detroit Institute of Technology, Fenn College, and Columbia University. He served with the U. S. Marine Corps during World War II.

Announcement has been made of the appointment of J. Harold Mintun as production manager of the Pittsburgh *Press*. He succeeds Charles Wolf who retired as *Press* production manager in July. Mr. Wolf had held that position since 1935. Mintun left the position of production manager of the Pittsburgh *Post-Gazette*, which position he had held since 1945. Mr. Mintun is well known throughout the ANPA Mechanical Conference group of newspaper executives. He assumed his new duties in August. Formerly, Mr. Mintun was production manager of the Decatur Newspapers, Inc., in Decatur, Ill. Henry H. Garland, composing room superintendent, has been appointed mechanical superintendent of the Pittsburgh *Post-Gazette* to succeed Mr. Mintun, he having been associated with that paper for 26 years.



check test

To produce a high quality mat in a laboratory is one thing—to make thousands just like it is another. But Burgess Chrome Mats, though produced in volume, are absolutely uniform; in moisture content, in shrinkage, in quality reproduction.

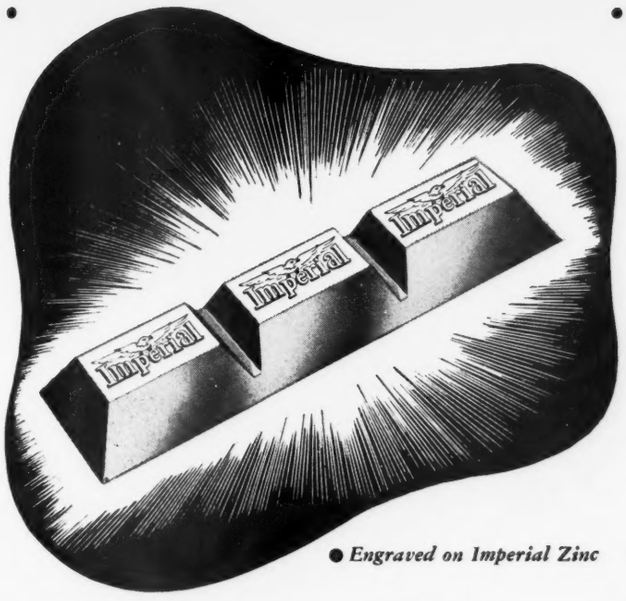
Check . . . test . . . check . . . test! This is the formula behind Burgess quality and uniformity. At the Burgess plant—actually a huge laboratory—every step in manufacture is carefully controlled, and numerous checks and tests are constantly being made. This laboratory precision results in the superior mat upon which stereotypers have come to rely.

A Laboratory Product BURGESS Chrome MATS

BURGESS CELLULOSE COMPANY

Manufacturers and Distributors of Burgess Chrome and Tone-Tex Mats

FREEPORT, ILLINOIS



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WITH IMPERIAL YOU ARE

Sure!

● In printing, variable factors are the cause of many difficulties. Imperial Type Metal *plus* Imperial Service eliminates, once and for all, one of the most costly, most troublesome of all of the variables in printing production.

With Imperial Metal *plus* Imperial Service you are always sure of metal uniformity. You develop no gray hairs over metal difficulties. You waste no time tinkering and adjusting. And you free yourself at once from the extra costs of imperfect casts, machine shutdowns and other production losses for which metal deterioration can be responsible.

The Imperial Type Metal Man is a specialist in metal problems. Without obligation he will study your work and recommend the particular Imperial Service that will prove most advantageous for you. At your request we'll gladly put you in touch with him.

Imperial

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SERVING THE GRAPHIC ARTS *Exclusively*

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MAKING THE UNLIKELY AN *Accomplished Fact!*

If you showed a Star Spaceband to a production engineer unfamiliar with our business . . . and you told him:

- How many operations enter into its production
- The type of steel used in it
- The special tempering which makes it harder . . . yet less brittle than other spacebands
- The extreme accuracy constantly maintained . . . some tolerances in tens of thousandths*
- The extra fine finish required by Star standards (even the back of sleeve is ground)
- The price . . .

. . . . he would probably tell you "it can't be done!"

Nevertheless—it *is* done! And we unhesitatingly state that the ingenuity and "know how" that go into it—and the economy and freedom from repair chores which it brings its users—make the Star the finest spaceband money can buy.

* *Making it the only band with sleeve and wedge fully interchangeable.*

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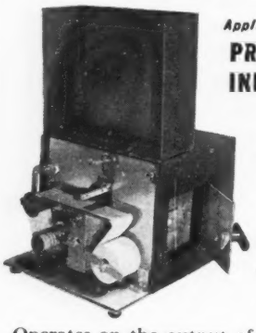
William Robert Trotter, a former vice president of the International Typographical Union, and original organizer and director of ITU's Bureau of Statistics for 16 years, passed away recently after an extended illness. Retired several years ago, he was 79 years old. Mr. Trotter entered the printing trade at an early age when he became apprenticed to a book printing firm in England. Following active service in the Boer War, he emigrated to Winnipeg, Canada to follow his trade. Prominent in labor circles, he was elected second vice president of the ITU in 1922 and transferred his residence to Indianapolis, Ind. Mr. Trotter is survived by his wife, Ellen Boyd Trotter, and a son, Ernest F. Trotter, editor of *Printing Magazine*.

A RECORDING MECHANICAL COUNTER



Applicable to the **PRINTING INDUSTRY**

Write for Bulletin E

Operates on the output of a photo-electric cell, limit switch or any similar device. Records production against time and maintains a permanent record on a 2¼" tape. Automatically resets to zero every hour. Here is a step in production counting that permits a complete analysis of efficiency in terms of hours or minutes instead of shifts, days or weeks. The reset feature eliminates much computation. It simplifies the entire task of studying production flow and determining how to maintain a high production level.

STREETER-AMET COMPANY

Automatic Weight Recorders & Scales
High Speed Counters *Since 1888*

4109 Ravenswood Ave., Chicago 13, Ill.

Alan B. Heiffrich, until recently General Sales Manager of St. Regis Paper Co., has announced the formation of his own paper sales organization to be known as Alan B. Helffrich Co. Mr. Helffrich has also been associated with the Orono Pulp & Paper Co., Price Brothers, Eastern Corporation, and Fraser Industries. He formerly was Penn State and N.Y.A.C. Olympic middle distance track champion. Address of the Helffrich organization is 369 Lexington Ave., New York 17, N. Y.

Alan B. Helffrich announces formation of his own paper sales organization.

For Sale . . .

3-5/0 2-color

MIEHLE LETTERPRESSES

- **GOOD CONDITION**
- **AC ELECTRICAL EQUIPMENT**
- **EXTENSION DELIVERY**
- **CROSS FEEDERS**

PRICED TO MOVE!

Write Box 330
Printing Equipment Engineer

Frank Barnecott sales representative, Pacific Coast territory of R. Hoe & Co., Inc.

C. W. Harrold, Vice President in Charge of Engineering and Research for the Harris-Seybold Co., has announced the promotion of Howard J. Seel to the position of Assistant Engineer in Charge of Offset Press Development. Mr. Seel, a mechanical engineering graduate of the University of Minnesota, has been with Harris-Seybold since 1936. He represented the firm for six years as a service representative, working out of the Chicago office. He will report directly to A. B. Woodruff, Engineer in Charge of Offset Press Development.

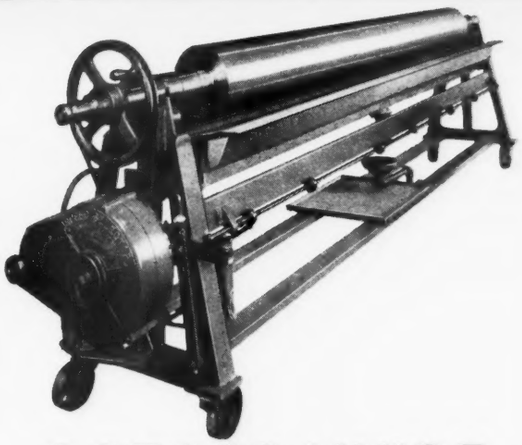
Howard J. Seel, Assistant Engineer in Charge of Offset Press Development, Harris-Seybold

Van Rennselaer Walden, Vice President and a director of Walden, Sons & Mott, Inc., New York, passed away on July 28 at his Glen Rock, N. J. home following a long illness. Mr. Walden joined his father's firm as a young man, working on the advertising and editorial staffs of *Printing Magazine* and *Paper & Paper*

FABULOUS PROFITS *created by a* ***FABULOUS FOLDER***

The new Automatic **BAUMFOLDER LINE** has everywhere become . . . **THE PRINTERS' GOLD-MINE IN '49.** The All-Buckel 14 x 20 five-fold to the All Buckel 28 x 44 . . . with selectivity of nine to fourteen folding plates (any combination of which can be used simultaneously . . . making it the most versatile Folder in the world . . . and incidentally the fastest . . . therefore the most profitable) enthusiastically acclaimed from Coast to Coast. Every hour a "BAUM" rolls off the production line. Please telephone, **reversing charges,** LOMBARD 3-8165 . . . ASK for me personally . . . let's talk it over. We want **you** to start making fabulous profits now . . . It's yours on Pay-For-Itself-Terms. Thanks.

RUSSELL ERNEST BAUM • 615 CHESTNUT STREET • PHILADELPHIA, PA.



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ETCHING TRUCK

Manufactured in Various Sizes and Equipped with acid resistant rubber lined adjustable pan; ¾ H.P. motor and speed selector with speeds from 0 to 420 RPM; control bar extending the length of the pan for stopping or reversing rotation of cylinder; rubber covered tray for holding containers to recover acid; funnel spout drain with swivel pipe to drain water from pan. The truck can also be used for developing carbon tissue, staging and as a cylinder truck. It is mounted on casters to allow easy moving from department to department. This will increase the efficiency and speed of any gravure processing section.

STANDARD PROCESS CORPORATION
Manufacturing Gravure Equipment & Supplies
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BEVERIDGE *Says:*

Have You Ever Used "Hit or Miss" Mats?

We're talking about mats that make fine reproductions sometimes and the next batch—well, let's say—leave a lot to be desired. But there's one mat that makes a hit every time—never misses—that's because of its dependability. We're talking about BEVERIDGE Mats. Their outstanding characteristics are uniformity—not just in one shipment but in all shipments. If you're having trouble with "hit or miss" reproductions, write us.

New Products Division
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Indianapolis 4, Indiana

NEWSPAPER PRODUCTION SUPPLIES

- **TESTED FOR DEPENDABILITY!**
- **CONSISTENT IN ECONOMY!**

Smooth, uninterrupted production... the kind that saves you money all along the line... is no accident! It's the direct result of wisely providing tested and proven supplies and equipment for each phase of production.

To get the most in dependability and economy from **your** production... order your supplies from EASTERN! **Fast, efficient service guaranteed.**

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- **FLECTO GUMMED BACKING FELT**
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- **COMPOSING ROOM AND STEREOTYPE EQUIPMENT**
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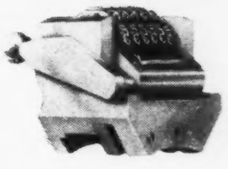
Count On WETTER NUMBERING MACHINES

FOR IMMEDIATE DELIVERY

We appreciate your waiting for Wetter Numbering Machines. Once again they are in stock and you can order your Wetter today—get delivery right away.



Whether you need new numbering machines for your old presses or to round out your new equipment, you'll find a complete line of Wetter machines for either rotary or flat bed presses to meet your exact requirements. It will pay you to count on Wetter for dependable service when it comes to numbering for profit. Send for free descriptive folder today.

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NUMBERING MACHINE COMPANY
5462 **Atlantic Ave. & Logan St., Brooklyn 8, N. Y.**

Products and trade directories the company publishes. For several years he headed the firm's Chicago office when the company published *Ben Franklin Monthly* and *Western Printing*. He was a veteran of World War I and a member of the Paper Club of New York.

The Craftsmen Machinery Co. has announced the appointment of William R. Williams as Sales and Advertising Manager. Mr. Williams was formerly with Harris-Seybold Co. as New England sales representative. He was associated with the printing house of William Edwin Rudge, Inc., from 1922 to 1930. He then joined the New York *Daily News* as manager of the newspaper's commercial printing department. He has also served in the plants of various publishers, and in 1933, set up his own firm to handle printing sales.

Hejnar Johnson, in charge of manufacturing for the Eastern District of International Printing Ink, passed away on August 11 at Israel-Zion Hospital in Brooklyn, N. Y. Mr. Johnson, a native of Sweden, began his inkmaking career in 1904 with Philip Ruxton, Inc. He was credited with being the first to make finished inks with a system of base inks. When the Ruxton firm became part of IPI in 1928, he was made superintendent of the Brooklyn, N. Y. plant and in 1937 was appointed plant manager.

du Pont Blue Pigment

ANNOUNCEMENT has been made by the du Pont Company of a light-fast blue pigment for producing non-fadable printing inks. The pigment was developed for use in connection with food and soap labels and cartons, display and poster work, tin decorating, etc. Sponsor states that it is the brightest of Monastral pigments, in a peacock or green-blue hue, which permits blending it with other colors to form a wide variety of shades. It is claimed that the pigment is resistant to light, heat, acids and alkilis; will not bleed in lithographic fountain solutions, and will not absorb the drier as the ink ages.

BOOKS
RECEIVED

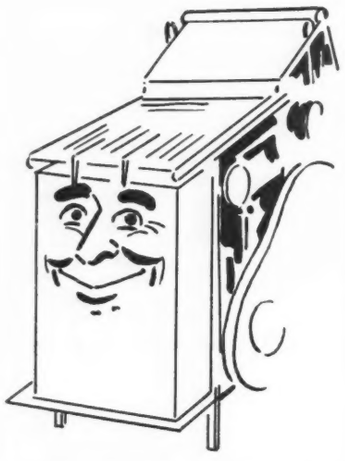
PIA Course in Selling Printing

PRINTING Industry of America has published an entirely new Course in Selling Printing. The set consists of 12 units. The Course is a collective effort and represents the experience of successful printers, lithographers and their sales representatives.

One way of describing the content of the course is to state that in it is explained what typical printing salesmen do; what they fail to do; what they say; what they fail to say; what sales points they use; what sales points they fail to use. PIA asserts that the course is based on facts—not opinions.

The 12 units are as follows: (1) The Salesman's First Job; (2) Making the First Call; (3) Individualizing Your Approach; (4) Exchanging Ideas; (5) Getting the Order; (6) Cultivating the New Customer; (7) Submitting Proposals; (8) Handling Questions of Technique; (9) Handling Objections; (10) Meeting Competition; (11) Improving Customer Relations; (12) The Salesman's Continuing Job.

Supplementary material is included



A good *Press* knows its grease and oil

PRESSMEN—Is your PRESS getting more work today than it did 10 years ago? If you answer YES—YOU need the best lubricants obtainable to keep your press giving maximum performance.

ALBANY TALLOW LUBRICANTS will give YOU maximum performance.

If your Press is equipped with grease cups use ALBANY GREASE No. 3—with pressure fittings. ALBANY SOFT PRESSURE GREASE—if it is oil lubricated. ALBANY VISCOUS PRESS OIL . . . and finally give all gears, cams, chain drives—no matter what press you are using—ALBANY GEAR LUBRICANT NO. 93.

YOUR PRESS WILL SHOW YOU THE ADVANTAGES IN USING ALBANY LUBRICANTS.

Service bulletin No. 10 available on request.

ADAM COOK'S SONS, INC.
Mfrs. of Albany Lubricating Products
LINDEN, NEW JERSEY

STICK TO
Booth's Zink Cut Cement

Year after year, hundreds of composing and stereotype departments stick to BOOTH'S Zink Cut Cement—and for one reason—it's the best known method of quickly mounting cuts and holding them fast.

75c per tube—$6.00 per dozen in the United States

Need Rubber Keyboard Rolls?

Supply your requirements with BOOTH'S Rubber Rolls—always smooth—always receptive to linecomposing machine keyboard cam action. They have maximum cam gripping qualities and resistance to glaze . . . and are of even diameter when applied properly to the roll shaft. You can get them for

$1.45 per pair or $7.75 per dozen

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E. A. BOOTH RUBBER CO.
2855 SCARBORO ROAD CLEVELAND HEIGHTS, OHIO

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YEARS EXPERIENCE
Designing
Newspaper & Printing Plants
New Plants • Remodeling
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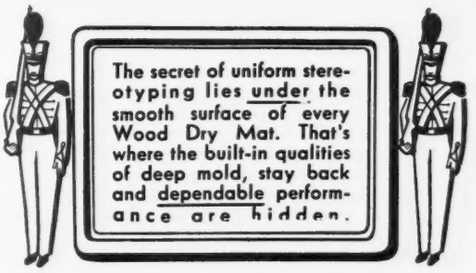
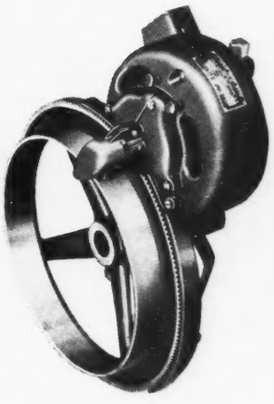

The secret of uniform stereotyping lies under the smooth surface of every Wood Dry Mat. That's where the built-in qualities of deep mold, stay back and dependable performance are hidden.

An Intangible Feature
of the
CUSHMAN
Offset
MOTOR



.... is the traditional, conscientious craftsmanship of Old New England • Every detail of this motor, so painstakingly planned and carefully built, bespeaks sturdiness • It is not uncommon to see a Cushman Motor still running after forty years of service • With all this, you can buy a Cushman for less than the price of any other line casting machine motor • Write

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If you have not yet had our new "REGAL" MONOCORK, now is the time to find out what you have been missing!

YOU BE THE JUDGE!

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Mr. Stereotyper;
Ask about the Mono-Molder,—dry mat molding without cork, creeper or board, also ask about new purchase plan at reduced rates on Gummed Felt Packing.
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We are happy to announce a new precision rubber plate grinder
THE HACO
Send today for further information on how Haco will accurately grind rubber printing plates to the thickness you desire, saving you time, plates and money.
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To Get Complete Information on the
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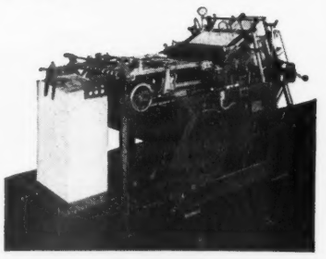
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PIA Course in Selling Printing—Each set consists of 12 units. Each unit is a 16 page and cover pamphlet. Page size is 8½ in. by 11 in., punched to fit a ring binder with heavy linen - covered boards stamped in gold. Each first set complete with Guides is $35. Published by Printing Industry of America, Inc., 719 Fifteenth St., N.W., Washington 5, D. C.

Magnesium Plates

A THOROUGH - GOING treatise upon the making and use of photoengraved-magnesium plates has been published by Printing Industry of America, Inc. In this bulletin, it is stated that the use of magnesium plates has passed the laboratory stage . . . but nonetheless, it should be stressed that magnesium is in the early stages of its application.

Actually, magnesium photoengraving plate is rolled from an alloy by Dow Chemical Co. The present alloy overcomes former corrosion problems and provides increased strength properties. Research studies indicate that magnesium has the same general characteristics as copper, and is superior in most respects to zinc. The supply is unlimited.

Magnesium, under repeated pressure becomes tougher. Some firms are using magnesium plates for long-run work. One book test involved over 1 million copies, the million run being completed before the plates showed signs of wear. In dry mat molding tests, one firm molded 6850 stereotype mats and the magnesium plate exhibited stability equivalent to copper.

In Appendix A of the bulletin, H. E. Swayze, Research Engineer, Magnesium Laboratories, Dow Chemical Co., reports that metals such as magnesium and copper, having a grain size of 0.001 in. or less, would allow five or six grains to each highlight dot (120 line halftone screen), giving the required strength to resist distortion . . . Grain size can easily be controlled in the sheet rolling operation . . . Due to the fine grain size of magnesium, halftones from 55 to 200 line can be used with completely satisfactory results.

"Stretch" or dimensional change upon repeated heating and cooling in processing photoengravings is negligible in using magnesium. Recrystallization is the technical term for "stretch."

Workability, properties and processing of magnesium during all the operations in the photoengraving plant are discussed. Repair of magnesium engravings is also discussed, as is the matter of taking precautions against fires.

Press life of magnesium plates has been receiving attention by various printing plants for several years. Governing factors affecting the life of the plate consist of the quality of the paper, type of ink, impression pressure (when printed from direct), type of press. "Numerous types of papers processed by different chemical treatments poses a problem of both chemical attack and abrasive wear since all papers contain filler material that can be classified as mild abrasives," Mr. Swayze comments. "The recent clay-coated enamel stock is definitely abrasive in nature and will tend to lower the press life of any printing plate," it is observed.

Acknowledgment is made to an impressive list of well known executives associated with the Graphic Arts industries for furnishing information and assisting in the preparation of the work. Among these people are H. E. Swayze, Research Engineer, Magnesium Laboratories, Dow Chemical Co.; Kinsey Jones, Vice President, Laurel Publishers, Bridgeport, Conn., and to John E. Rees, Rolled Plate Metal Co. The bulletin was compiled by Fred J. Hartman. Revision, review and approval were secured from the PIA Engraving Research Committee. Aside from these authorities, the manuscript ran the gauntlet of the PIA Re-

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search Committee in its preparation.

Incidentally, Printing Industry of America announces establishment of a committee to provide an opportunity for personnel of firms using magnesium plates to meet and exchange information. The next meeting of this special group is scheduled to be held in Toledo, O., September 16 and 17.

Magnesium Plates—GPO-PIA Joint Research Bulletin (PL-1) 28 pages, size 8½ in. by 11 in. Price $5 per copy to members; $10 per copy to non-members of PIA. May be ordered direct from Printing Industry of America, Inc., 719 Fifteenth St., N. W., Washington 5, D. C.

Printing Industry Employment Record

THE next few years will see "a continued, but much more moderate and irregular, growth" in the number of jobs in the printing trades, according to an occupational outlook study on printing occupations, prepared by the U. S. Labor Department's Bureau of Labor Statistics for Veterans Administration.

The BLS report discusses the employment outlook in a number of individual occupations in the printing trades. Among the jobs covered are:

Hand Compositors and Typesetters: Employment opportunities are expected to be very good in most parts of the country during the next few years. Employment in this occupation will no doubt tend to decrease in the long run owing to continued advances in machine typesetting and other factors.

Line-composing Operators: The outlook for skilled Intertype and Linotype operators during the next few years is good in the country as a whole. The long-range outlook, too, is reasonably favorable. Eventually, however, technological and other factors may lead to a stable or even a declining trend in employment.

Monotype Keyboard Operators: In few, if any, parts of the country where Monotype operators are employed will qualified journeymen have the slightest difficulty in finding a job at any time in the foreseeable future.

Monotype Caster Operators: Employment opportunities for experienced workers are expected to be good in this occupation. Employment is likely to increase at an even faster rate than among keyboard operators.

Procfreaders: Increased printing activity will mean rising employment of proofreaders in the next few years. Therefore, persons completely new to the field will have little, if any, chance for jobs. The outlook report adds that workers usually enter this occupation from another composing-room job or a front-office job with the same company.

Electrotypers and Stereotypers: Journeymen will generally find it easy to get jobs in the next few years. There will also be some training opportunities, though not as many as during the first year or two after the war. Jobs and business opportunities will seldom be found outside large industrial areas and will be mainly in or around New York, Chicago, Philadelphia, Detroit and Cincinnati.

Photoengravers: Employment has been rising steadily since the end of the war and will probably continue to do so in the immediate future.

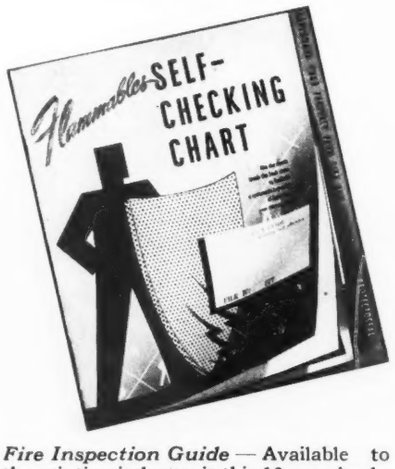
Rotogravure Photoengravers: There has been little room for newcomers as rotogravure photoengravers in the last year or so. However, the volume of rotogravure work has been rapidly returning to pre-war levels and there has been frequent need for additional workers. As yet, openings have been filled in most instances by former workers returning to the trade or by letterpress photoengravers transferring.

Pressmen: Employment in the occupation will rise considerably in the next few years and probably more slowly thereafter, with rather limited opportunities in lithographic work, however, outside New York City, Chicago and San Francisco.

Bookbinders: Employment is likely to resume its long-run downward trend in the next few years, if it has not already begun to do so.

Bindery Workers: Employment has risen considerably since V-J day. The likelihood is for stability in number of jobs, if not further gains, in the next year or two.

The occupational report on the printing trades was prepared with the cooperation of the Printing Industry of America, Inc., the Graphic Arts Association of Washington, D. C., other trade associations, the Joint Lithographic Advisory Council, officials of many unions, and members of the staffs of the Government Printing Office, Bureau of Engraving and Printing, U. S. Employment Service, and other government agencies.



Fire Inspection Guide — Available to the printing industry is this 12 page booklet published by The Protectoseal Co., outlining procedures to be followed in helping reduce the hazard of and loss by fire. The subject of flammable liquids is covered in sections on fire facts, production line hazards and science stops fires. In the back of the booklet is a pocket containing seven departmental charts which will enable a check-up to be made on flammable hazards in a particular department or the plant in general.

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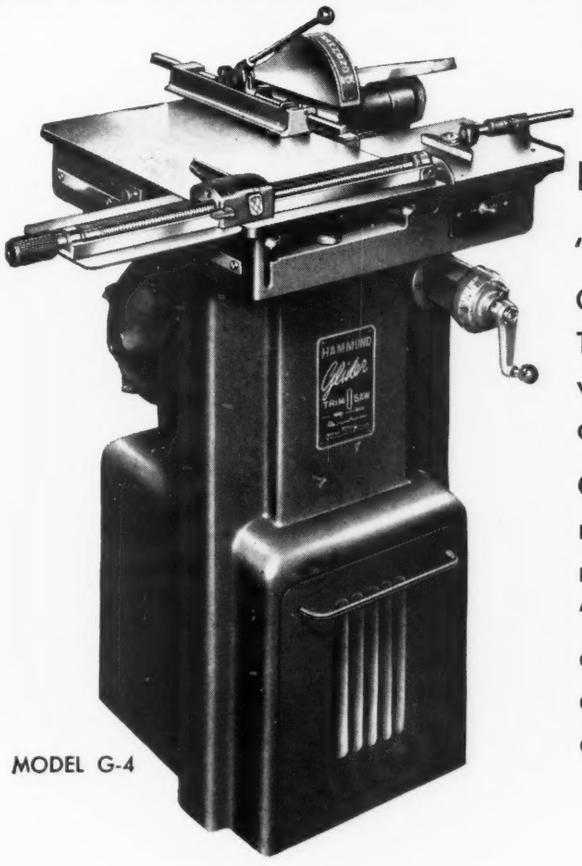

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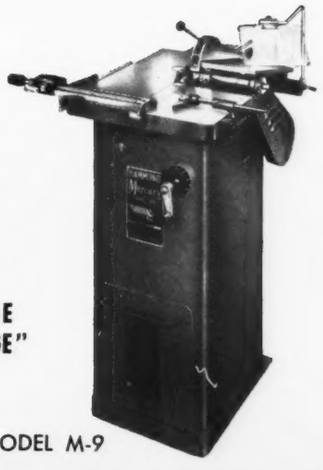

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